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ABSTRACT

Listed are specifications and regulations governing construction plans for facilities operated by boards of education in New Jersey. Following a description of administration and enforcement procedures, are detailed standards for buildings, barrier-free design, energy conservation, electrical systems, and plumbing. This publication supersedes the previous guidelines, which were issued in 1969. (WB)

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CODE FOR SCHOOL PLANNING AND CONSTRUCTION

State of New Jersey
Department of Education
Division of Finance & Regulatory Services
Bureau of Facility Planning Services
Trenton, New Jersey 08625

July 1979

SE 033 144

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Bureau of Facility Planning Services

Richard M. Gates
Architectural Assistance
609-292-4412

Joseph E. Nixon
Educational Assistance
609-292-4404

Howard W. Holcombe
Safety Assistance
609-292-4412

1979

PREFACE

In order to facilitate the transition from the 1969 Guide to the 1979 Code the following timetable will be observed.

1. All initial submissions of plans for school construction projects as of July 1, 1979 shall comply with the 1979 Code.

2. Preliminary plans approved subject to the 1969 Guide may be completed in accordance with that Guide, provided that final plans are submitted for approval prior to January 1, 1980.

3. Preliminary plans submitted for approval after June 30, 1979 shall comply with the 1979 Code in both the preliminary and final submissions.

4. All plans shall be in compliance with either the 1979 Code or the 1969 Guide as permitted in items 1, 2 and 3 above. Combined use of both Codes for a particular project is not permitted.

TO OBTAIN COPIES

Request for copies of the Code should be made to the Office of Central Services, Division of Operations, Research and Evaluation, New Jersey State Department of Education, 225 West State Street, Trenton, New Jersey 08625. The price is $2.50 per copy. Payment must be made in advance by check or money order payable to the Treasurer, State of New Jersey.

NEW JERSEY ADMINISTRATIVE CODE

EDUCATION

Title 6

SUBTITLE D: Division of Business and Finance

CHAPTER 22: School Facility Planning Services

AUTHORITY: N.J.S.A. 18A:18A-16

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SUBCHAPTER 1. ADMINISTRATION AND ENFORCEMENT

6:22-1.1 Bureau of Facility Planning Services

(a) The Bureau of Facility Planning Services is an office within the New Jersey Department of Education. The Bureau acts in behalf of the State Board of Education in approving all construction plans for board of education operated facilities and is constituted as the enforcing agency for the purpose of administering and enforcing regulations with respect to such facilities in the State. This involves the review of architectural plans and on-the-job inspection of construction. For this purpose, the Bureau maintains a staff which is trained and experienced in advising and assisting school districts on the proper planning of educational facilities. Bureau personnel are available to local school districts at all stages of planning development.

(b) The objectives of the Bureau are as follows:

1. To ensure that proposed construction projects comply with State construction standards, with regard to the health and safety of the occupants and energy conservation, and that proposed construction projects satisfy the educational program requirements of the local district.

2. To ensure that long-range capital needs are identified at the local level for all school districts.

3. To ensure that proposed school sites are suitable for the intended use.

4. To ensure that completed projects are constructed in accordance with approved plans and specifications before issuing occupancy permits.

5. To encourage local school districts to provide and maintain healthful and safe temporary and permanent facilities.

6. To encourage local school districts to provide and utilize educationally adequate temporary and permanent facilities (learning environments).

7. To require that all public school facilities in the state be inventoried and evaluated periodically for educational function and physical condition.

(c) Consultant service is available from the Department of Education at no charge to assist boards of education, administrators, and their staffs in the planning of specific facilities or a complete public school facility. From time to time bulletins on specific facilities, such as instructional media centers, science laboratories, and school sites are produced by the Department. Those wishing to have a list of available bulletins or requesting the services of consultants should write or call the Director of Facility Planning Services (609-292-4410).

6:22-1.2 Authority

Administrative procedures necessary for the efficient conduct of business in the Bureau of Facility Planning Services are herein provided as **the State Board of Education's school planning and construction code, hereafter referred to as the school code.** The State Board of Education is authorized under N.J.S.A. 18A:4-15 to prescribe rules and regulations necessary to carry into effect the school laws of this state and under N.J.S.A. 18A:18A-16, 18A:4-35 and 18A:20-36 to review and approve plans, inspect buildings, and order the alteration or abandonment of buildings. The authority for the regulations and standards set forth in this

Chapter are derived from the aforementioned statutes.

6:22-1.3 Interpretation of regulations

(a) In the event of a question of interpretation of any of the standards or regulations, the same shall be determined by the Director, Bureau of Facility Planning Services.

(b) Dates of other referenced codes are current with the preparation of **the school code and its amendments.**

6:22-1.4 Responsibility

(a) The responsibility for the structural, electrical, and mechanical design and construction of a facility and for its alteration or addition is that of the architect and/or engineer retained by the board of education.

(b) It is the responsibiltiy of the board of education and the school administrator to:

1. Prepare immediate and long-range facility master plans for public school facility expansion and improvements.

2. To retain a qualified professional to design facilities in accordance with information and requirements provided by the board and its chief school administrator.

3. To have the construction supervised.

(c) It is the responsibility of the architect and/or engineer to make certain that his/her plans and specifications conform to the regulations and standards set forth in **the school code.**

(d) No responsibility is assumed by the State Board of Education for the structural, electrical, mechanical design and construction of a facility, the grade of materials, or the quality of fixtures and equipment installed.

6:22-1.5 Bureau records

The Bureau director is the construction official in charge. Official records are kept of all business and activities of the Bureau specified in the provision of this code and such records are open to public inspection at appropriate times.

6:22-1.6 Modifications

(a) When there are practical difficulties involved in carrying out structural, electrical or mechanical provisions of **the school code, the Bureau director may vary** or modify such provision upon application of the owner or his/her representative, provided that the spirit and intent of the regulation observed and the public's welfare and safety shall be assumed.

(b) The application for variances and modifications and the final decision of the Bureau director shall be in writing and shall be officially recorded in the permanent records of the Bureau.

6:22-1.7 Scope

(a) **The school code relates to all facilities owned,** occupied and/or operated by boards of education.

(b) These regulations shall control all matters concerning the construction, alteration, addition, repair, removal, demolition, use, location, occupancy and maintenance

of all buildings and structures as herein defined, and shall apply to existing or proposed public school buildings and structures in the State of New Jersey.

(c) The approval of plans and specifications is limited to the specific regulations enumerated in this Chapter and does not contemplate the endorsement of the materials, mechanical equipment, or other devices mentioned in the specifications or shown on the plans.

6:22-1.8 Master plans

(a) Master plans projecting a 10-year estimate of capital construction needs shall be developed by each school district. Such plans shall include a thorough description and analysis of local and regional demographic factors which influence general population growth and public school enrollments. The master plan shall also include a thorough description and analysis of local geographic features, socio-economic characteristics of the population, community aspirations and financial ability to support education, population mobility, transportation and traffic patterns and facilities, the educational program, administrative structure of the school system, condition and utility of existing educational and recreational facilities, zoning ordinances, land use, utilities available throughout the district and public cultural facilities.

(b) Initial copies of the master plan shall be submitted

to the Bureau of Facility Planning Services for review and approval no later than July 1, 1979. Updated master plans shall be submitted every five years thereafter for Bureau approval. Initial and updated copies of the master plans shall be submitted first to county superintendents of schools, and local and regional planning boards for their recommendations. After the initial master plan has been approved, should a school district propose any major capital construction program, the master plan shall be updated within six months of the date of construction plan submission. The district shall submit the master plan to the Bureau of Facility Planning together with the schematic plan submission.

(c) The design of the master plan shall be such that it can be updated annually for local use.

6:22-1.9 Maintenance

(a) All buildings and structures and all parts thereof, both existing and new, shall be maintained in a safe and sanitary condition. All service equipment, means of egress devices, and safeguards which are required by this code in a building or structure, or which were required by a previous statute for a building or structure, when erected, altered or repaired, shall be maintained in good working order.

(b) The owner or designated agent shall be responsible for the safe and sanitary maintenance of the building or structure and its exitway facilities.

6:22-1.10 Right of entry

(a) In the discharge of his/her duties, the Bureau director or authorized representative shall have the authority

to enter any public school facility at any reasonable hour to enforce the provisions of the school code.

(b) The assistance and cooperation of police, fire, and health departments and all other officials shall be sought as required in the performance of the director's duties.

6:22-1.11 Preparation of plans

(a) All plans and specifications for public school facilities must be prepared by an architect or professional engineer registered to practice in the State within the limits covered by such registration. It is the policy of the Department of Education to accept plans for review only from registered professionals who have been retained by the board of education for the project.

(b) Each page of the plans and the title page of the specifications shall bear the signature and embossed seal of the architect and/or professional engineer. The name, signature, and embossed seal of consulting professional engineers shall be placed on their own plans.

(c) Consideration must be given to the growing use of schools and related facilities by persons who are physically handicapped. Pursuant to N.J.S.A. 18A:18A-17 and 17.1, provisions for the handicapped are mandatory for public school construction in accordance with the State Standard Barrier-Free Design Code (see N.J.A.C. 6:22-3.0 et seq.).

(d) Educational specifications are prepared in writing, detailing all the facilities considered desirable for the program. Estimates of desired dimensions and square footage for each area shall be provided, together with an explanation of their proposed utilization and relationships. This document shall be prepared under the direction of the chief school administrator with the

assistance and involvement of the administrative staff, faculty, board of education, citizens, pupils, specialists and educational consultants. The educational specifications are approved by the board of education. The county superintendent of schools shall be notified in writing of this action and receive a copy of the educational specifications.

(e) The architect is selected through accepted procedures. Assistance in the manner of selection may be obtained from the New Jersey Society of Architects, 110 Halsted Street, East Orange, New Jersey 07018.

(f) Rules regarding the selection of a school site are:

1. No board of education may conduct a referendum (or take title to the land in the event of a gift) without prior approval of the Bureau of Facility Planning Services.

2. Before any action is taken to purchase or otherwise acquire land, it is required that the local school district must first receive approval of its adequacy from the Bureau of Facility Planning Services of the Department of Education. In order for the Department of Education to consider the approval of land acquisition by a board of education, it is necessary that the Director of Facility Planning Services be provided with the following:

i. A written request from the board of education for such approval, to include a statement indicating the immediate and ultimate proposed uses of the land in terms of grade organization and potential maximum enrollment.

ii. A statement from the State Department of Environmental Protection that the land can be adequately provided with the necessary water and an acceptable sewage disposal system for

the proposed ultimate maximum enrollment, and that the project has no potential for a substantially adverse environmental impact.

iii. A statement from an architect or engineer indicating that the land to be acquired is suitable for the proposed use.

iv. A complete plot plan of the land to be acquired, showing topographical and contour lines, adjacent properties (on all sides) and access roads. The acreage and dimensions of the tract proposed for acquisition shall be included.

v. A map of the school district showing the location of the land and the location of existing schools in the district.

vi. Recommendations of the county superintendent of schools.

vii. A pupil distribution map, if available, showing places of residency.

viii. If existing buildings are located on the land to be acquired, the intended use and/or disposition of these buildings should be indicated. Any building to be acquired and used must comply with all procedures and regulations of the State Board of Education which apply to the construction of a new building.

ix. Data regarding the impact of such a facility upon racial balance within the district's public schools.

x. Recommendations of local planning boards (in municipality where the site is located and in adjacent municipality, if proposed school site is along the municipality's boundary line).

6:22-1.12 Schematic plans submission

(a) Educational specifications which have been approved by the local board are submitted to the architect who prepares a proposal in the form of schematic plans and an estimate of the cost.

(b) After approval of the proposal by the local board of education, the schematic plans, educational specifications and cost estimates shall be submitted to the Bureau and the county superintendent for review and comment. If modifications in the plans are found to be desirable, it is at this early stage that they can be made with the least delay and cost. The review process continues until satisfactory plans have been developed.

(c) The proposal must also be submitted to the local planning board. It is permitted 45 days to make recommendations regarding the project (N.J.S.A.40:55D-31). Neither approval of plans and specifications nor a building permit from the municipality, however, is required (N.J.S.A. 18A:18A-49).

(d) When an extension of credit is needed (N.J.S.A.18A:24-23), a date for a hearing with the Department of Education is arranged with the Director of School Finance through the office of the county superintendent of schools. Schematic plans shall be submitted to the Bureau of Facility Planning Services for review at least 30 days prior to an extension of credit hearing. If extension of credit is not required, schematic plans shall be submitted to the Bureau 60 days before seeking local approval for funds.

(e) The schematic submission shall include one copy of a plan for each floor (no smaller than one-sixteenth scale), a complete

site plan, educational specifications, and three copies of a cost estimate on the official State form. If an addition, a floor plan of the existing facilities must be included, showing present and proposed utilization. The site plan should show all existing buildings on the site, locations and types of on-site easements, fire limit of the site, and present use of contiguous property.

(f) Before schematic plans can be approved, the Office of Equal Educational Opportunity must receive a completed OEEO questionnaire from the district and make a positive recommendation to the Bureau in writing.

(g) When schematic plans are approved, notice of such approval will be issued to the chief school administrator, the secretary of the board of education, the county superintendent and the architect. Approval by the Bureau, at the schematic stage, is for the adequacy of the proposal to provide facilities suitable for implementing a scund educational program. Site selection, including location, size and dimensions, has been judged an integral part of the facilities and requires Bureau approval within the limits of local availability of land and sound planning. The plans are also reviewed for school code compliance, regarding major design items which can be identified in the outline drawings of a schematic plan.

(h) Department approval of schematic plans shall be held as in effect for a period of one year only after the date of such approval.

6:22-1.13 Preliminary plan submission

(a) If the expenditure is approved locally by referendum or board of school estimate resolution, the architect is

authorized to prepare one set of preliminary plans which shall be submitted to the Bureau for review. This step involves reviews by consultants for educational adequacy and by architectural review staff with reference to school code compliance; two separate approvals are necessary. Preliminary plans will not be accepted for review until the project has been funded appropriately.

(b) Preliminary plans submitted for review and approval shall include the following:

1. A site plan of the school property, drawn to scale, giving overall dimensions, the points of compass, general topographical conditions, the location of existing structures and their relation to the proposed building, the relation of the school to highways and streets, and such physical features that present any deterrents in maintaining adequate protection for the safety, health, sight or comfort of the pupils. The site plan may be drawn to any scale, so long as it indicates with clarity the required features.

2. Preliminary floor plans shall be drawn not less than one-sixteenth scale, giving overall dimensions; the location, size, and intended use of all areas of the plans; the tentative layout of equipment features of special rooms including built-in equipment; future additions; a statement giving general method of heating and ventilating; and a description of the proposed method of lighting all instructional areas. If the proposed building is to have several identical rooms, one such room shall be shown in complete detail as being typical of such identical rooms.

3. There shall be a drawing, using the same scale, of elevations and sections to indicate the finished floor and ceiling levels and their relations to the finished outside grade, together with the steps or other features related to the exit facilities.

4. In the case of an addition to any existing building, it is required that a floor plan be submitted showing all areas including existing sanitary facilities and exits and any proposed changes therein.

5. There shall be submitted with, or as a part of the preliminary plans, a statement showing:

i. The grade levels of pupils to be housed in the building.

ii. The planned pupil capacity of the building.

iii. Authorization and source of funds for the project.

iv. Evidence that the methods of sewage disposal and water supply have been presented to the State Department of Environmental Protection for its review.

6. Two important practices, followed undeviatingly by the State Department of Education, should be noted by those submitting preliminary plans:

i. Any preliminary plans not in conformity with the requirements of this section will be returned without review.

ii. Prints, preferably black on white to identify preliminary plans from final plans, are required in submitting preliminary plans for review and tentative approval. These should be mailed to the Director of Facility Planning Services, State Department of Education, 225 West State Street, Trenton, New Jersey 08625.

7. In order to minimize the amount of revision in the final plans or working drawings, it is required that preliminary plans shall be submitted and tentatively approved by the State Department of Education before the final plans are started. This allows the Department sufficient time to review the plans adequately in light of requirements and to offer such constructive comments or advice that may be deemed advisable. Notice of approval of the preliminary plans will be issued to the superintendent of schools, the secretary of the board of education, county superintendent and the architect.

8. Department approval of preliminary plans shall be held as in effect for a period of one year only after the date of such approval.

6:22-1.14 Final plans submission

(a) Final plans and specifications submitted for review and approval by the Department of Education shall meet the following requirements and shall conform with the best prefessional practices. They shall show clearly, accurately and completely, information on all phases of the work to be undertaken:

1. Plans and specifications shall be submitted in duplicate, together with two copies of the official application for approval properly filled out and signed as required.

2. Plans and specifications submitted for approval shall not be eligible for review and recommendations for approval until all procedure requirements have been met.

3. Incomplete plans and specifications will not be accepted for review.

4. All applications for approval shall be sent to the Director, Facility Planning Services and made upon the official form prepared and supplied by the Director. These forms are furnished upon request of the architect, and it is required that they be used instead of duplicate copies as made by the architect. The application must be signed by the architect, or the consulting mechanical or structural engineer in the case of specific planning being undertaken in these areas exclusive of other areas, and the secretary of the board of education affirming that formal approval of the plans has been made by the board of education. Applications signed by others will not be accepted. All information requested on the application form for approval must be given and all queries fully answered.

(b) When final plans for the construction or alterations of a public school facility or any changes to such plans are submitted to the Department of Education for approval, such plans shall also be filed with the construction enforcing agency of the municipality in which the public school facility is located. The municipal enforcing agency shall have the right to inspect any such work for the purpose of advising the local board of education and the Commissioner of Education of any violations of the school code or of any practices which are detrimental to the health and safety of the community. The advice of the municipal enforcing agency is binding upon the local board of education, except that an appeal to the Director, Bureau of Facility Planning, shall be available to the local board of education. Neither

approval of plans and specifications nor a building permit from the municipality is required (N.J.S.A. 18A:18A-49).

(c) The following shall be submitted with each final plans submission:

1. A letter of approval from the State Department of Environmental Protection, Division of Water Resources, for the methods of sewage disposal and water supply.

2. A letter of approval from the Department of Environmental Protection, Division of Environmental Quality, for gas installations and major excavations.

3. A letter of approval or copies of application for permit to construct and operate "Control Apparatus or Equipment" from the Department of Environmental Protection, Division of Environmental Quality, for any device which prevents or controls the emission of any air contaminant as required by N.J.S.A. 26:20-9.

4. For premanufactured construction, a letter from the State Department of Community Affairs regarding compliance with N.J.A.C. 5:23-4.10 (the New Jersey Uniform Construction Code).

5. A letter of approval from the State Department of Agriculture, Division of Rural Resources, regarding compliance with the Soil Erosion and Sediment Control Act (N.J.S.A. 4:24-39 through N.J.S.A. 4:24-55).

(d) When the plans and specifications have been reviewed and approval has been granted formal notice will be sent to the architect, superintendent of schools, board secretary and county superintendent advising of the approval.

1. One set of the plans and specifications shall be retained by the State Department of Education, and the duplicate set, stamped with the State Board of Education's seal of approval and including the official notice of plan approval, shall be forwarded to the secretary of the local board of education.

2. Approval by the Department of Education is valid for the specific project indicated on the application. Every building project requires separate submission and approval of its plans and specifications. Any changes or revisions to the plans and specifications as approved must be submitted for approval in the same manner as the original submission, as such changes or revisions invalidate the original approval.

3. Approval of the final plans and building specifications shall be held as in effect for a period of one year only after the date of such approval. After that period, a renewal of the approval must be secured for the work not under contract.

(e) The following building specifications are examples of the information required in plans and specifications submitted for approval. They are not intended to enumerate all the items that should be covered but rather to establish uniformity in presenting data for review.

1. All specifications shall be indexed for quick identification of individual items. It is recommended that the five

sections of the specifications be in different colors for the same reason.

2. Specifications shall be of letter-size, bound at the left-hand side with covers the same size as the inside specifications, to facilitate filing and use.

3. The hardware schedule shall be included with the specifications. Plans and/or specifications shall clearly indicate the location of anti-panic hardware and door closers.

4. Whenever possible, drawings shall not exceed 36 inches by 48 inches.

5. Architectural, structural, and other kinds of mechanical work shall be shown on separate drawings. They may be combined only when clarity and completeness are not impaired.

6. A key site plan shall be given on one of the drawings to indicate the location of the school building with relation to the school property and to existing structures when additions are made, and the established orientation of the building to points of the compass. Where possible, the ultimate development of the site should be shown as future development.

7. A better practice than that of submitting a key site plan is to include with the final plans one sheet showing all of the items referred to under the preliminary site plan, fully developed and including the contours and the finished grades at the building and the elevation of the first floor level. Included should be such items as the location of walks, drives, parking areas, play and organized activity areas, kindergarten play yards, and adjoining streets and sidewalks. The boundaries, the size and the shape of the entire school property and the location of existing sewage disposal systems are other items for inclusion.

8. All drawings of any nature shall be fully dimensioned to give overall and individual unit dimensions, both horizontal and vertical, for all portions of the building, and shall include thicknesses of all walls, floors and foundations together with the present and finished grades at buildings.

9 General drawings shall not be less than one-eighth scale with plans for each floor and roof elevations sufficient to indicate all exteriors of the building and materials, plus sections sufficient to show clearly all and any special conditions. Stairs, classrooms and corridors, furred ceilings, equipment and fixtures, floor construction (levels and thicknesses), wall construction, and typical windows shall be shown. Consideration will be given to any exceptions an architect may find necessary in the scale and layout of his plans due to the unusual size of the program, provided, however, that the clarity and completeness of information will not be impaired.

10. Typical area drawings shall be in a larger scale where necessary for clarity, providing complete information on wall sections, floors and windows, with complete details for each type of window, if any. Data on the glass area shall include the vertical distances of the sill and vision area, and the distances of the top of the window glass above the floor and below the ceiling. Stair details shall show the construction and materials, riser heights, tread widths, overall dimensions of the stair runs, both vertical and horizontal, and the landing levels. Chalkboards and tackboards shall be pictured. Built-in equipment, wardrobes, and all special features requiring details for proper development shall be portrayed clearly.

11. Plumbing, heating, ventilating, electrical, and structural plans shall be scaled to conform with the general drawings. All mechanical and structural plans and details shall be developed with the same clarity and completeness that are required for the general plans. The method of ventilating clothing storage areas shall be clearly indicated by plan and section.

12. There shall be shown on the drawings the interior finish, including the floor, wainscot, ceiling and trim. A complete door and window schedule shall also be given. The materials used in all walls and partitions shall be indicated by means of symbol keys. A standard symbol key shall also be used in describing electrical work. The use intended for each room or space shall be written on the floor plans and not indicated by numerical cross reference.

6:22-1.15 Bids and contracts

(a) Advertising for bids in accordance with N.J.S.A. 18A:18A-1 et seq., may not proceed until after the plans and specifications have been approved by the Department of Education.

(b) The project architect shall submit two copies of all bulletins and addenda to the Bureau of Facility Planning Services for approval simultaneously with their issuance to contractors or other parties concerned. (Bulletins are defined as explanatory material only.)

(c) A copy of the proposed bid awards shall be submitted to the Bureau (on the proper form) for approval prior to the signing of construction contracts. Contractor Classification statutes must be adhered to (N.J.S.A. 18A:18A-26 et seq.). Contractors are classified by the Department of Treasury, Divisi of Building and Construction.

(d) Copies of the signed contracts shall be forwarded by the local board secretary to the Bureau within 10 days after signing for filing.

6:22-1.16 Change orders

(a) The architect shall submit two copies of all change orders to the Bureau for approval prior to making such changes. No change orders may be authorized until after contracts have been awarded.

(b) Upon approval of change orders a copy of the change order marked "Approved," will be sent to the board of education for its information and files. The architect will be notified of the approval by letter.

6:22-1.17 Preliminary inspections

(a) The architect or consulting engineer, where this is pertinent, shall give written notice to the Director of Facility Planning Services when a substantial portion of the rough mechanical work is completed so that a preliminary inspection can be scheduled of all work in place and written approval may be given before proceeding to close-in the work. Lathing and plastering or other closing-in may not proceed without such written approval. A "Notice of Approval" shall be issued to the board of education, chief school administrator, architect, and the county superintendent of schools when the work in place is in accordance with the approved plans and specifications.

(b) During the installation of electric wiring systems and service equipment, the electrical inspection agency having jurisdiction shall make inspections to insure compliance with the provisions of the National Electrical Code as amended in N.J.A.C. 6:22-2.2(o). Work in connection with an electric wiring

system shall not be covered or concealed until it has been inspected and permission to do so has been granted.

6:22-1.18 Final inspections and reports

(a) When in the opinion of the architect the building is ready for occupancy, in that health and safety mandatory provisions of the school code are met, the architect shall notify the Bureau accordingly and a final inspection will be made.

(b) On completion of the work, the electrical inspection agency having jurisdiction shall inspect the work and cause tests to be made of the operation of the entire system to insure compliance with all requirements. An electrical installation from which electrical service has been discontinued for a period of 30 days or more, shall not have service restored until the system has been reinspected and a new certificate of inspection issued.

(c) A final inspection report is mailed. No certificate of occupancy (N.J.A.C. 6:22-1.22) can be issued until corrections are made where required. Additional inspections may be necessary. When a final inspection indicates that the work has been completed in accordance with the approved plans and specifications, notice to that effect will be issued to the board of education, chief school administrator, the architect and the county superintendent.

6:22-1.19 Inspection fees

(a) Initial and additional inspection requests by architects on behalf of the board of education, for preliminary and final inspections shall be accompanied by a check (payable by the board of education to the Treasurer of the State of New Jersey) in accordance with the following table:

1. $25.00 for each inspection of a project which does not exceed in the aggregate sum $1,000,000.

2. $50.00 for each inspection of a project which is over $1,000,000 but not exceeding $3,000,000 in the aggregate sum.

3. $100.00 for each inspection of a project which is over $3,000,000 in the aggregate sum.

6:22-1.20 Acceptance of building by board of education

(a) The board of education will accept the building from the contractors upon certification by the architect that the project has been completed in accordance with the approved plans and specifications.

(b) Upon completion of the construction, the local board of education shall submit reports to the Department of Treasury, Division of Building and Construction, on the performance of all contractors (N.J.S.A. 18A:18A-15).

(c) The board of education should arrange to have the appropriate school administrator, custodians and maintenance staff, and the educational staff to become oriented in the operation and maintenance of the building in order to utilize the building as effectively as possible and to assure its proper care and maintenance. Such orientation should also emphasize energy conservation; comfort, health and safety of the occupants; minimizing vandalism opportunities; and preventative maintenance techniques.

6:22-1.21 Stop-work order

(a) Upon notice from the Bureau director or authorized

representative that work on any building or structure is being conducted contrary to the provisions of this code or in an unsafe and dangerous manner, such work shall be stopped immediately. The stop-work order shall be in writing and shall be given to the owner of the property involved, or to the owner's agent, or to the person doing the work, and shall state the conditions under which work may be resumed.

(b) Any person who shall continue any work in or about the structure after having been served with a stop-work order, except such work as he/she is directed to perform to remove a violation or unsafe conditions, shall be liable to a fine.

6:22-1.22 Certificate of use and occupancy

(a) Boards of education shall not authorize occupancy of a new building, in whole or in part, until a certificate of use and occupancy has been issued by the Bureau director. This certificate may be issued upon application of the local board of education followed by a final inspection and report by the Bureau of Facility Planning Services which indicates that the building has been completed in accordance with the plans and specifications previously approved by the Department of Education.

(b) A building or structure hereafter enlarged, extended or altered to change from one use category to another or to a different use within the same use category, in whole or in part, and a building or structure hereafter altered for which a certificate of use and occupancy has not been heretofore issued, shall not be occupied or used until the certificate shall have been issued by the Bureau director, certifying that the work

has been completed in accordance with the provisions of the approved plans; except that any use or occupancy, which was not discontinued during the work of alteration, shall be discontinued within 30 days after the completion of the alteration unless the required certificate is secured from the Bureau director.

(c) Upon written request for a change in use of an existing building, in whole or in part, from the owner, the Bureau director shall issue a certificate of use and occupancy, provided the facilities are suitable for the proposed use and such use is not deemed to endanger public safety and welfare.

(d) After a change of use has been made in a building or structure, the reestablishment of a prior use that would not have been permissable in a new building of the same type of construction is prohibited unless the building complies with all applicable provisions of this code.

(e) The Bureau director may issue a provisional certificate of use and occupancy for a building or structure, or part thereof, before the entire work covered by the final plan approval issued by the Bureau director shall have been completed, provided such portion or portions may be occupied safely prior to full completion of the building or structure without endangering life or public welfare.

(f) When a building or structure is entitled thereto, the Bureau director shall issue a certificate of use and occupancy within 10 days after written application is received. The certificate shall certify compliance with the provisions of this code and the purpose for which the building or structure

may be used in its several parts. The certificate of use and occupancy shall specify: the use category, the fire grading, the maximum live load on all floors, the functional capacity of the building, and any special stipulations and conditions of the building plans approval.

6:22-1.23 Posting structures and spaces

(a) Every board-owned and/or operated building and structure (for each administrative unit) shall be clearly posted with an approved placard designating the building's use and functional capacity.

(b) Every room of a facility with a capacity of 100 or more shall have the room's maximum occupancy (according to the Department of Education capacity formula) clearly posted.

(c) All posting signs shall be of permanent design. They shall not be removed or defaced and, if lost, removed or defaced, shall be replaced immediately.

(d) The Bureau director may periodically have all existing buildings and structures inspected for compliance with State Board regulations with respect to posting.

6:22-1.24 Violations

(a) The Bureau director shall serve a notice of violation or order on the person responsible for the erection, construction, alteration, extension, repair, removal, demolition, use or occupancy of a facility in violation of the provisions of this code, or in violation of a detail statement or a plan approved thereunder, or in violation of a certificate issued under the provisions of this code; and such order shall direct the discontinuance of the illegal action or condition and the abatement of the violation

(b) If the notice of violation is not complied with promptly, the Bureau director shall request the Department of Education to institute the appropriate proceeding at law or in equity to restrain, correct or abate such violation or to require the removal or termination of the unlawful use of the facility in violation of the provisions of this code or of the order or direction made pursuant thereto.

(c) Any board of education or individual who shall violate a provision of this code, fail to comply with any of the requirements thereof, or erect, construct, alter or repair a facility in violation of an approved plan or directive of the Bureau director, or of a permit or certificate issued under the provisions of this code, shall be subject to legal action instituted by the Department of Education.

(d) The imposition of the penalties herein prescribed shall not preclude the Commissioner of Education from instituting appropriate action to prevent unlawful construction or to restrain, correct or abate a violation, or to prevent illegal occupancy of a building, structure or premises or to stop an illegal act, conduct, business or use of a building or structure in or about any premises.

6:22-1.25 Unsafe facilities

(a) All facilities that are or hereafter shall become unsafe, unsanitary, or deficient in adequate exitway facilities, or which constitute a fire hazard or are otherwise dangerous to human life or the public welfare, or which by reason of illegal or improper use, occupancy, or maintenance, shall be deemed unsafe facilities. All unsafe structures shall be taken down and removed or made safe

and secure, as the Bureau director and county superintendent may deem necessary and as provided in this section. A vacant building unguarded or open at door or window, shall be deemed a fire hazard and unsafe within the meaning of this code.

(b) The Bureau director shall have examined every facility reported as dangerous, unsafe structurally or constituting a fire hazard, and shall cause a report to be filed in a docket of unsafe structures and premises, stating the use of the structure, the nature and estimated amount of damages, if any, caused by collapse or failure.

(c) If an unsafe condition is found in a facility, the county superintendent of schools shall serve on the owner, agent or person in control of the facility a written notice describing the facility deemed unsafe and specifying the required repairs or improvements to be made to render the facility safe and secure, or requiring the unsafe facility or portion thereof to be demolished within a stipulated time. Such notice shall require the person thus notified to immediately declare to the county superintendent his/her acceptance or rejection of the terms of the order.

(d) A facility so condemned may be restored to safe conditions provided change of use or occupancy is not contemplated or compelled by reason of such reconstruction or restoration; except that if the damage or cost of reconstruction or restoration is in excess of 60 per cent of its assessed value, exclusive of foundations, such structure shall be made to comply in all respects with the requirements for materials and methods of construction of structures hereafter erected.

(e) Upon refusal or neglect of the person served with an unsafe notice to comply with the requirements of the order to abate the unsafe condition, the Department of Education shall be advised of all the facts and shall institute the appropriate action to compel compliance.

6:22-1.26 Appeals

All decisions made by Bureau personnel may be appealed by the agency or individual affected. The initial appeal is to be made in writing to the Bureau director who may conduct an informal hearing. A decision shall be rendered by the Director within one week after receiving all necessary facts of the case. Should the agency or individual wish to appeal the Director's decision, further appeals may be made in succession to the Assistant Commissioner for the Division of Finance and Regulatory Services, the Commissioner of Education and the State Board of Education.

SUBCHAPTER 2. BUILDING SUBCODE

6:22-2.1 Model code adoption

(a) Subject to the modifications stated in Section 2 of this subchapter, the State Board of Education hereby adopts, by reference, the 1978 edition of the model code of the Building Officials and Code Administrators International, Inc., hereafter referred to as the "BOCA Basic Building Code," for all public school construction in New Jersey.

(b) The following articles or sections of the BOCA Basic Building Code are modified for the design and construction of facilities occupied by pupils. Other school facilities shall comply with all subcodes of the State Uniform Construction Code and Article 1 of the BOCA Basic Building Code as amended in section two of this subchapter.

6:22-2.2 Modifications to the BOCA code

(a) Article 1 of the BOCA Basic Building Code, entitled "Administration and Enforcement" is deleted in its entirety and subchapter 1 (Administration and Enforcement) of this chapter substituted in lieu thereof.

(b) Article 2 of the BOCA Basic Building Code, entitled "Definitions and Classifications," is amended as follows:

1. Section 201.0 entitled "General Definitions" shall be amended as follows:

The definition of the term "Approved" is amended to add the phrase "in accordance with the school code."

The definition of the phrase "Approved rules" is amended to read "The legally adopted regulations of the State Board of Education."

"Board of education" shall mean any local or county

education agency responsible for the operation of a school district under N.J.S.A. 18A:8-1 et seq., 18A:46-29 et seq., and 18A:54-11 et seq.

The definition of the term "Building, existing" is amended to read "Any structure for which final approval of plans and specifications has been granted by the State Board of Education."

The definition of the term "Building official" is deleted and substituted in lieu thereof, in all the BOCA Basic Building Code with the exception of Article 13, by "The Facility Planning Services Bureau director, or his/her duly authorized representative, charged **by the Commissioner of Education with the administration and enforcement of the school code as it applies** to facilities owned and/or operated by boards of education."

"Building subcode official" shall mean the same as "Building official" as defined in this subsection.

"Bureau" shall mean the Bureau of Facility Planning Services in the State Department of Education.

The definition of the phrase "Certificate of use and occupancy" is amended to delete the words "building permit" and in lieu thereof substitute "approved plans and specifications."

"Construction official" shall mean the same as "building official" as defined in this subsection.

The definition of "Common corridor" is deleted and shall mean the same as "exitway" as defined in the BOCA Basic Building Code.

The definition of the term "Controlled construction" is deleted.

The definition of the term "Controlled materials procedure" is deleted.

"Director" shall mean the Director of the Bureau of Facility Planning Services.

"Enforcing agency" shall mean the State Board of Education.

"Equipment" shall mean plumbing, heating, electrical, ventilating, air conditioning, refrigerating and fire prevention equipment, and elevators, dumb waiters, escalators, boilers, pressure vessels and other mechanical facilities or installations which are related to building services. This shall not include manufacturing, production or process equipment, but shall include connections from the building service to process equipment.

The definition of the term "Existing building" is deleted and shall mean the same as "building, existing" as defined in this subsection.

The term "Existing equipment" is deleted.

"Exit" shall mean a doorway or doorways, interior or exterior, providing safe access directly to a corridor or to the exterior with safe access to the street.

"Exit unit" shall mean a means of egress measured in units of exit widths of 22 inches. It shall be measured in the clear at the narrowest point of the means of egress except that a handrail may project inside the measured width on each side not more than 3½ inches and a stringer may project inside the measured width not more than 1½ inches.

The terms "Exitway access," "Exitway discharge," and "Exitway discharge court" are deleted and in lieu thereof substituted by the definition for "exit" as defined in this subsection.

"Fire division" shall mean the interior method of separation of one part of a floor area from another together with fire resistive floor construction to form a complete fire barrier from adjoining or superimposed floor areas in the same building or structure.

"Fire drill" shall mean the organized procedure (as required in N.J.S.A. 18A:41-1) conducted with or without a private fire brigade for vacating the occupants of a building and for operating the first-aid fire appliances and equipment for the extinguishing of fire and safeguarding of life.

"Fire protection subcode official" shall mean the same as "building official" as defined in this subsection.

"Fire retardant lumber" shall mean wood treated by a recognized impregnation process so as to reduce its combustibility.

"Heater room" shall mean any room where a boiler or other fuel-fired heating equipment is located. This definition shall not include rooms containing domestic type water heaters of less than 100 gallons storage capacity.

The definition of the term "Hereafter" is amended to delete the words "this code becomes" and in lieu thereof substitute "these regulations of the State Board of Education become."

The definition of the term "Heretofore" is amended to delete the words "this code" and in lieu thereof substitute "these regulations of the State Board of Education."

"Maintenance" shall mean the replacement or mending of existing work with equivalent materials or the provision of additional work or material for the purpose of safety, healthfulness, and upkeep of the structure and the adherence to such other standards of upkeep as are required in the interest of public safety, health and welfare.

The definition of the term "Means of egress" is deleted and substituted in lieu thereof by "a continuous path of travel from any point in a building or structure to a public way at grade level. A means of egress comprises the vertical and horizontal means of travel and may include such elements as the room space, doorway, corridor, hallway, passageway, stairs, ramp, lobby and vestibule."

The definition of the term "Mobile unit" is deleted and the following substituted in lieu thereof: "Any vehicular structure built on a chassis and designed for and used at more than one location during the school year without a permanent foundation. The facility may have its own means of propulsion or it may be constructed to be towed; wheels and axles are a permanent part of the chassis."

The definition of the term "Motor vehicle repair shop" is amended to delete the last phrase "including a public garage" and in lieu thereof substitute "and/or taught."

"Open space educational area" shall mean any portion of a building other than a gymnasium, auditorium and cafeteria, designed for multiple teaching stations which may be subdivided into smaller areas by use of partial partitions, movable partitions, or movable furniture, and does not have defined permanent corridors.

"Passageway" shall mean a horizontal means of intercommunication between elements of an interior suite of rooms, not considered a corridor.

The definition of "Permit" is deleted and substituted in lieu thereof by: "Approval by the Commissioner of Education of final plans and specifications."

"Plumbing subcode official" shall mean the same as "building official" as defined in this subsection.

"Primary corridor" shall mean a corridor designed to serve a combination of instructional spaces with a combined occupancy load of more than 75 pupils.

The definition of the phrase "Professional engineer or architect" is amended to add the phrase "in New Jersey."

"Public school facility" shall mean any land, building or structure owned and/or operated by a board of education (or commission acting as a board of education) and designed to serve a particular school-related purpose including, but not limited to, administration office, athletic field, bleacher or grandstand, education building, field house, garage, greenhouse, maintenance building, parking lot, playfield, refreshment stand, residence, site development, storage building, swimming pool or tennis court.

"Relocatable facility" shall mean any structure, modular unit or prefabricated unit, designed to be used at more than one location during the life of the facility and where wheels and axles are not a permanent part of the supporting frame.

The definition of the term "Required" is amended to delete the words "this code" and in lieu thereof substitute "the school code."

The definition of the term "Riser" is amended to read as

follows: "The vertical member between treads of a stair or the vertical supply pipes in a sprinkler or standpipe system."

"Secondary corridor" shall mean a horizontal branch corridor serving no more than three instructional rooms in a portion of the building designed to preclude the addition of more instructional rooms in the future.

"Smoke-stop door" shall mean a door, usually enclosing a stairway, designed to retard the spread of heat, smoke or fire and not listed as a labeled fire door. (A "smoke-stop" door is sometimes referred to as a smoke-screen door.)

The definition of the term "Story" is amended to add the following sentence: "When a school building has a basement, the ceiling of which averages seven feet six inches or more above the finished grade, such basement shall be considered a story in determining the number of stories in the building."

The term "Story (first)" is deleted.

"Street floor or first floor" shall mean any story or floor level accessible from the street or from outside the building at ground level with its floor level at the main entrance not more than three risers above or below ground level at these points. Where due to differences in street levels there are two or more stories accessible from the street, each is a street floor for the purposes of the school code."

2. In Section 202.0 entitled "Use Group Classification" items listed which are not applicable to public school facilities are as follows:

i. Use Group A-1 and A-3 (theaters) A-2;

ii. Use Group F, factory and industrial buildings;

iii. Use Group H, High hazard buildings;

iv. Use Group I, Institutional buildings.

3. In Tables 203.7, 210.4, and 211.2 the sections on "Sanitation" are amended to change "Plumbing and drainage Article 17" to read "Plumbing subcode" and delete "Handicapped plumbing fixtures 316.8."

4. In Tables 203.7, 210.4 and 211.2 the sections on "Electrical wiring" are amended to change "Article 15" to read "Electrical subcode."

(c) Article 3 of the BOCA Basic Building Code, entitled "General Building Limitations" is amended as follows:

1. Section 301.1 is amended to delete the term "building official" on line 2, and substitute in lieu thereof, "municipality."

2. Section 301.2 is amended to delete the phrase "are described as bounded by (to be specified)" and insert in lieu thereof the phrase "shall be as established by the municipality by ordinance pursuant to subchapter 4 of the New Jersey Uniform Construction Code."

3. In Table 305 all area limitations in the A-4 Use Group shall be increased by 100 per cent.

4. Section 307.1 is deleted.

5. Section 308.0 is deleted in its entirety.

6. Section 315.0 is deleted in its entirety.

7. Section 316.1 is amended to delete the phrase "state and/or local government authority" and substitute the following in lieu thereof: "State Commissioner of Education." The phrase "subject to the approval of the board of appeals" is deleted.

(d) Article 4 of the BOCA Basic Building Code, entitled "Special Use and Occupancy Requirements" is amended as follows as it applies to instructional areas such as shops, laboratories and home economics areas which have high potential for fire, smoke, explosion or toxic gas risks:

1. Section 417.6.3 is amended to delete the word "eight" and in lieu thereof substitute "12."

2. In Section 424.1 change the reference from "Section 201.0" to "subsection (b) of this section."

3. Section 424.0 is amended to add the following items:

i. "A mobile unit shall be considered an instructional or service adjunct to existing school facilities and as such shall not contribute to the total capacity of the building. The unit shall not be used for the purpose of transporting pupils. A site plan must be submitted and approval granted for each location of a mobile unit. The site plan shall include, but not be limited to:

(1) The existing school facilities;

(2) The location or locations for mobile unit usage;

(3) The service utilities required for the mobile unit."

ii. "Any mobile unit, to be acquired through purchase, gift, lease or otherwise, shall be approved by the State Board of Education and shall meet the following requirements:

(1) The unit shall comply with pertinent New Jersey Motor Vehicle regulations.

(2) Units 20 feet overall in length or longer shall have two means of egress remote from each other.

(3) Each unit shall be equipped with at least one fire extinguisher of the five pound ABC type.

(4) Artificial lighting shall comply with the school code.

(5) Air conditioning is optional but where utilized must comply with the school code.

(6) Air exchanges shall comply with the ventilation requirements of the Energy Subcode.

(7) The unit shall be placed on the site where it will not adversely affect surrounding properties.

(8) Oil and gas heating systems for the unit shall comply with the school code. Electrical heating installations shall comply with the Electrical Subcode. In any case, the heating system must meet minimum temperature requirements as outlined in the school code."

4. Article 4 is amended to add the following sections:

i. "Open space educational areas shall comply with the following:

(1) An open space area of noncombustible or fire resistive construction shall not exceed 30,000 square feet in undivided area. A solid wall or smoke-stop noncombustible or fire resistant partition shall be provided at intervals not to exceed 300 feet. Such a wall or partition may have smoke-stop doors therein consistent with Section 612.0 of the BOCA Basic Building Code as amended in subsection (f) of this section.

(2) Travel distance to an outside exit on ground level from any point in an open space educational area shall not exceed 150 feet. Travel distance to an exit stairway on a floor above or below ground level shall not exceed 100 feet in line of travel from any point. Line of travel will be calculated as the

distance around installation of any fixed obstruction to a direct route of egress. Folding partitions or walls will be considered as located at their maximum extension.

(3) Interior finish in unsprinklered open space areas shall be class "I" or class "II" throughout except that movable partitions not over seven feet in height may be class "III" as defined in Section 921.0 of the BOCA Basic Building Code.

(4) Each subsection of an open space area shall provide an opening, to the largest section of the total open space expanse, that is at least as wide as 20 per cent of the perimeter of the enclosure of that subsection, but cannot be less than 10 feet wide. Any area of the open space which does not provide an unobstructed opening of at least 10 linear feet must be interpreted as not meeting the requirements of open space planning or construction. Such areas will then have to meet all the requirements of the school code applying to areas that are not open space areas.

(5) Any open space provisions exceeding 8,000 square feet in area that will be more than eight feet above grade will require that the construction of that building meet requirements of fire resistive construction as detailed in Section 214.0 of the BOCA Basic Building Code. Buildings completely equipped with an approved automatic sprinkler protection may be of noncombustible construction.

(6) For each 1,000 square feet of floor area, in an open space area that is not air conditioned, there must

be provided at least one window that complies with all the requirements of Section 500.0 of the BOCA Basic Building Code as amended in subsection (e) of this section. The window areas provided shall be reasonably distributed.

(7) If any floor above the second story has an open space area exceeding 2,500 square feet, the entire building shall be sprinklered and may be of noncombustible construction.

(8) The total area of open space expanse, enclosed by walls and doors, shall be ventilated in accordance with the Energy Subcode.

ii. Adequate provision shall be made for the storage of pupil clothing."

(e) Article 5 of the BOCA Basic Building Code, entitled "Light, Ventilation and Sound Control" is amended as follows:

1. Section 500.3 is amended by adding the following: "When an instructional room has windows, the major window wall shall have no exterior obstructing wall within 20 feet of it."

2. Section 503.1 is deleted in its entirety.

3. Section 504.3 is deleted and the following substituted in lieu thereof: "The glazed areas of windows and exterior doors in habitable rooms and spaces need not be operable where an approved mechanical air conditioning system is provided in accord with the Energy Subcode."

4. Section 506.1 is deleted and the following substituted in lieu thereof: "All habitable and occupiable rooms or spaces should contain windows whose light transmitting properties and the area of the devices are adequate to meet the minimum daylighting and ventilating standards in Section 502 of the BOCA Basic Building Code.

Windows shall be provided in non-air conditioned habitable and occupiable rooms or spaces."

5. Section 506.2 is deleted and the following substituted in lieu thereof: "In non-air conditioned instructional rooms, the area of the window opening shall be optional, provided that the aggregate length of the masonry opening shall be not less than 10 feet. Windows shall be glazed with clear glass or other transparent medium, having a light transmission factor of not less than 10 per cent. The height of the window area shall be not less than six feet above the finished floor extending downward to the window stool. Window stools in instructional areas shall not be more than three feet six inches above the finished floor. Glazing shall meet Federal Public Law 92-573 as listed in Appendix B."

6. Section 506.4 is amended to add the following: "Windows are not required in air conditioned rooms and spaces which meet the requirements of the Energy Subcode."

7. Section 506.5.1 is amended to add the following:

i. "The average ceiling height of a classroom or other instructional space more than 300 square feet in area shall not be less than nine feet six inches in height and no part shall be lower than eight feet. Instructional spaces of less that 300 square feet and areas of larger spaces devoted to clothing alcoves, storage or work space may have ceilings eight feet in height. It is recommended that an additional two inches in height be provided to allow for inadvertent variations in materials or construction which could result in the finished ceiling height not meeting this requirement."

ii. "Public school corridors shall have a minimum ceiling height of not less than eight feet."

8. Section 508.1 is deleted in its entirety.

9. Section 509.1 is deleted in its entirety and the following substituted in lieu thereof: "Offices, workshops, machinery and boiler rooms shall be provided with either the required windows specified in Section 506.0 as amended in this subsection (for habitable and occupiable rooms, opening directly on a street or required yard or court), or with an approved system of mechanical ventilation complying with the Energy Subcode. Mechanical ventilation shall not be an acceptable substitute for a window, skylight or approved explosion hatch in a boiler room."

10. Section 510.1 is deleted in its entirety and the following substituted in lieu thereof: "Subdivided portions of an auditorium shall be designed to meet all criteria for windowless instructional spaces."

11. Sections 512.1 through 512.7 are deleted in their entirety and the following substituted in lieu thereof: "Toilet and bath rooms shall be provided with mechanical ventilation (supply and exhaust) and lighting in accordance with the Energy Subcode and Article 15 as amended in subsection (o) of this section.

12. Section 514.1 is deleted and the following substituted in lieu thereof: "Mechanical supply and exhaust ventilation shall provide the air quantities specified in the Energy Subcode."

13. Section 516.2.1 is deleted and the following substituted in lieu thereof: "Every such court shall have a minimum width of 20 feet."

14. Section 516.2.2 is deleted.

15. Section 516.3 is deleted.

16. Section 516.4 is deleted in its entirety and the following is substituted in lieu thereof: "All inner courts up to 2,000 square feet in area shall have not less than one exit. Inner courts with an area from 2,000 to 5,000 square feet shall have not less than two exits, one of which shall open onto a corridor or to the exterior. Inner courts with an area from 5,000 through 7,500 square feet shall have at least three separate exits, one of which shall open onto a corridor or to the exterior. All courts of over 7,500 square feet shall have four exits, two of which shall open onto a corridor or to the exterior. Exits to the corridor shall have widths of not less than two exit units. Inner courts shall have exit facilities operable from the court side at all times that the building is occupied; corridor exit doors shall swing into the corridor."

17. Section 516.5 is deleted in its entirety including subsections 516.5.1 and 516.5.2.

18. The second sentence in Section 518.1 is deleted in its entirety.

(f) Article 6 of the BOCA Basic Building Code, entitled "Means of Egress" is amended as follows:

1. Section 600.0 is amended to add the following:

i. The finished floor level of any instructional room or place of assembly shall be such that an occupant of its main floor, using main exits, shall ascend no more than four feet to reach the outside grade.

ii. In no case shall an auditorium, assembly room, gymnasium, cafeteria or any space subject to occupancy by 200 or more persons be so situated that an occupant of its main floor,

using main exits, must descend more than eight feet to reach the outside grade.

2. Section 601.2 shall be deleted in its entirety and the following substituted in lieu thereof: "When not otherwise specified, the minimum number of occupants to be accommodated by the exitways shall be determined by the occupancy load prescribed in the following sections and by using the 'School Capacity' bulletin."

3. Section 603.2 is deleted in its entirety and the following substituted in lieu thereof: "Exhaust ducts or vents of air conditioning and/or ventilating system shall not discharge into stairways or elevator enclosures, nor shall corridors be used as a return exhaust from spaces through louvers or other devices in the doors or partitions enclosing such space."

4. Section 604.2.1 is amended to change "building official" to read "Bureau director."

5. Section 604.2.2 is deleted and the following substituted in lieu thereof: "Within seven working days after the service of the exitway order of the Bureau director, the owner may file a written appeal therefrom and in accord with N.J.A.C. 6:22-1.24."

6. Section 605.1 is deleted and the following substituted in lieu thereof:

i. "It shall be unlawful to obstruct or reduce in any manner the required clear width of any doorway, corridor, passageway or any other exitway required by the provisions of this code, except as permitted under Section 610.1.2 of the BOCA Basic Building Code as amended in paragraph 17 of this subsection.

ii. No portable or movable equipment or furniture shall be placed in any lobby, corridor, exitway, stairway or space used as a means of egress.

iii. Projections, when not restricting the required clear width, may extend into the corridor beyond the face of the corridor wall and shall not exceed the following:

(1) Structural or accumulative structural, 13 inches in depth. Structural encroachments shall not exceed one foot six inches in width in each 15 feet of corridor length.

(2) Drinking fountains, noncombustible lockers, wall telephones, radiators, fire extinguisher cabinets or other recessed or wall mounted equipment shall not project more than 13 inches into the corridor.

(3) Mullions, jambs and net thickness of smoke-stop doors in their full open position, shall not exceed 10 per cent of the provided corridor width."

7. Section 606.1 is amended to delete the first three items in their entirety and the following substituted in lieu thereof:

i. "The actual number of occupants for whom each occupied space, floor, or building, as the case may be, is designed for; or

ii. The number of occupants computed at the rate of one occupant per unit of area as prescribed below for pupil use areas and in Table 606 for non-instructional spaces:

(1) Instructional rooms based on 40 square feet of floor area;

(2) Assembly rooms with fixed seats based on seven square feet of floor area or the planned fixed seating capacity whichever is larger;

(3) Assembly rooms without fixed seats such as gymnasiums, multi-purpose rooms, large group instructional areas, music rooms, choral rooms, lecture halls or any other space with

a capacity in excess of 100 based on 15 square feet of floor area per occupant;

(4) Cafeterias 12 square feet of floor area;

(5) Libraries 40 square feet of reading area;

(6) Assembly rooms in frame buildings, one unit for every 300 square feet of floor area;

(7) One unit of exit to the corridor or to the exterior is required for each 100 students or fraction thereof for locker rooms. When the gross floor area is more than 2,000 square feet, two separate exitways shall be provided; or

iii. The number of occupants of any space as computed for all spaces that discharge through the space in order to gain access to an exitway. Compute the total number of units of exit width required for the first floor by adding to the number required for that floor the number required for the second floor, plus one-half the number required for the rooms occupied by pupils above the second floor."

8. Section 606.4 is amended to delete the phrase "in Table 606" and change the phrase "building official" in the last sentence to read "Bureau director."

9. In Section 606.6, the phrase "meeting rooms" is deleted.

10. Section 606.7 is amended to delete the first item and the following substituted in lieu thereof: "When the actual occupant load of any space will be significantly different than that determined in Section 606.1, as amended, the Bureau director may establish an alternate basis for the determination of the occupant loads. The space occupied by permanent fixtures or displays may serve to reduce the occupant load."

11. Section 607.2 is amended to delete the last phrase which reads "or to an area of refuge with supplemental means of egress that will not be obstructed or impaired by fire, smoke or other cause."

12. Section 607.4 shall be deleted in its entirety and the following substituted in lieu thereof: "Travel distances shall be calculated as follows:

i. At least one available stairway or exit shall be within 120 feet as measured along the center line of the corridor from the center line of the door from each room with a capacity of 10 or more persons.

ii. Each exit door from places of assembly shall be within 120 feet of an available exterior exit or stairway. The units of exit from rooms or assembly shall be combined with the number of units from classrooms and other assembly rooms. Exterior exit units shall be sufficient for the total number of exit units required from each room of assembly and instructional areas.

iii. Travel distance to an outside exit on ground level from any point in an open space educational area shall not exceed 150 feet. On a floor above or below ground level, travel distance to an exit stairway shall not exceed 100 feet from any point. Travel distance will be calculated to include the distance around any fixed obstructions to a direct route of egress. Folding partitions or walls will be considered as located at their maximum extension."

13. Section 608.1 is amended to read as follows: "The unit of egress width for all approved types of means of egress parts and facilities shall be 22 inches. No one-half unit credits will be given."

14. In Section 609.4 the second paragraph is deleted in its entirety and replaced by the following: "Bars, grills or screens placed over emergency escape windows and over all windows located in rooms occupied by pupils shall be releasable or removable from the inside without the use of a key, tool or excessive force."

15. Section 610.1 is deleted in its entirety and the following substituted in lieu thereof: "All instructional rooms over 300 square feet in area and all places of assembly shall have doors opening into a corridor except those with direct exterior exits. Small instructional spaces such as remedial rooms, seminar rooms, and practice rooms may open into the instructional space they serve."

16. Section 610.1.1 is amended to read "Access through turnstiles, gates, rails or similar devices shall not be permitted."

17. Section 610.1.2 shall be amended to add the following: "Door projections shall not be opposite each other."

18. Section 610.2 is deleted in its entirety and the following substituted in lieu thereof:

i. "Corridors shall provide direct connection to the exterior or a stairway. Corridors shall not terminate more than 10 feet beyond an exit but where a corridor widens to form a lobby or other space its depth shall be no greater then its width."

ii. "A passage off a corridor shall not be deeper than the width of that passage."

iii. "Interior passages serving as a one-way exit from a pupil occupied area shall be limited to 30 feet in length and serving no more than one instructional area."

19. Section 610.3 is deleted in its entirety and the following substituted in lieu thereof: "Primary corridor widths:

i. Minimum clear widths in elementary schools, grades kindergarten through eight, shall be:

(1) Seven feet, wall-to-wall without lockers or wardrobes.

(2) Eight feet, wall to locker face with lockers or wardrobes on one side.

(3) Nine feet six inches, locker face to locker face with lockers or wardrobes on both sides.

(4) No primary corridor width shall be less than the total maximum exit units it serves.

ii. Minimum clear widths, at any point in secondary schools, grades 7 through 12, shall be:

(1) Seven feet six inches, wall-to-wall without lockers.

(2) Eight feet six inches, wall to locker face with lockers or wardrobes on one side.

(3) Ten feet locker face to locker face with lockers or wardrobes on both sides.

(4) No primary corridor width shall be less than the total maximum exit units it serves.

iii. It is recommended that these minimums be increased 50 to 100 per cent in congested areas such as major building entrances, auditoriums, cafeterias and gymnasiums.

iv. Primary corridors may be reduced one foot in width from the above requirements when each room has a direct exit to the outside, the corridor door is recessed so as not to project more than seven inches beyond the corridor wall or face of lockers, and the corridor door swings into the instructional room.

v. A secondary corridor may be reduced as much as 18 inches below the required width of primary corridor but not less than the total maximum exit units it serves.

vi. Hallways or passageways within an instructional space or serving administrative or infrequent pupil use may be reduced to 42 inches."

20. Section 610.4 is deleted in its entirety.

21. The second item in Section 611.2 is amended to read as follows: "The vestibule is separated from the remainder of the level of discharge by self-closing doors, which when glazed shall be provided with one-quarter inch thick wired glass. There shall be no other interior openings into a vestibule."

22. Section 611.3 is amended to add to the last sentence the phrase "when the travel distance from the room door to the exterior exit or stairway exceeds 120 feet."

23. Section 611.4 is amended to read as follows: "The effective width of the lobby or other enclosed passageway shall be not less than the total aggregate width of all required exitways and doorways opening into the passageway. Such passageway shall have a minimum width of 44 inches and a minimum clear ceiling height of eight feet."

24. Section 611.5 is deleted in its entirety and the following substituted in lieu thereof: "Exit stairways shall discharge directly to the exterior."

25. Section 612.2 is deleted in its entirety and the following substituted in lieu thereof:

i. "The number of doorways shall comply with the following and shall be hung to swing in the direction of exit travel without obstructing the required width of exitway.

ii. An exit is defined as a doorway or doorways, interior or exterior, providing safe access directly to a corridor and the exterior with safe access to the street.

iii. Exits as remote from each other as practicable shall be provided on the following basis:

(1) Rooms or spaces with 2,000 or more square feet or a capacity of from 100 to 500 persons shall have at least two exitways.

(2) Rooms or spaces with a capacity of from 501 to 900 persons shall have at least three exitways.

(3) Rooms or spaces with a capacity of more than 900 persons shall have at least four exitways.

iv. In determining the number of exits required, capacities of rooms or spaces shall be computed in accordance with 606.1 as amended in this subsection.

v. Required exitways may use a communicating corridor leading to exterior exits, but exitways from any one room or space with a capacity of 200 or more persons shall not use a common stairway.

vi. Instructional rooms having a capacity of 10 or more persons and providing 300 or more square feet of space with direct entrance only through a space other than a corridor, such as an assembly room, stage, gymnasium, cafeteria, all-purpose room or room of similar function, shall be provided with an exterior exit door.

vii. Any pupil occupied space which may be subdivided with folding doors or partitions must conform to all exitway requirements from each part of the subdivided area with all folding partitions in their closed position."

26. Section 612.3 is amended to change the fifth sentence to read "A door 42 inches in width shall be deemed the equivalent of two full units of egress width."

27. Section 612.4 is amended by the deletion of the last sentence and the following substituted in lieu thereof: "The distance of exitway access travel from any space shall comply with the following:

i. At least one available stairway or exit shall be within 120 feet as measured along the center line of the corridor from the center line of the door from each instructional room, locker room, or room with a capacity of 10 or more pupils.

ii. Each exit door from places of assembly shall be within 120 feet of an available exterior exit or stairway. The units of exit from rooms of assembly shall be combined with the number of units from classrooms and other assembly rooms.

iii. Exterior exit units shall be sufficient for the total number of exit units required from each room of assembly and instructional areas.

iv. Except where the entire building is provided with an approved fire suppression system, corridors around any windowless instructional rooms shall be provided with electromagnetically controlled smoke doors so located to ensure smoke-free exit from the windowless room or rooms.

v. A secondary means of exit from each windowless instructional room including windowless, subdivided auditorium space, shall be available in addition to the regular corridor exit. This may be via an adjoining instructional area to a second corridor, directly to such second corridor or into an adjoining instructional area provided with not less than one emergency exit door. Locks on doors leading to a secondary exit shall not be permitted. Such doors shall be lettered 'Emergency Exit Door -- No Locks Permitted.'"

28. Section 612.5.1 is deleted in its entirety and the following substituted in lieu thereof: "Locks and hardware on egress doors shall comply with the following: All pupil exit doors from a building, including exit doors from auditoriums, gymnasiums, all-purpose rooms, cafeterias, and two or more classrooms using a common door, shall be equipped with bar-type panic hardware, except that in lieu thereof doors to the exterior from heater rooms, shops, locker rooms and other special instructional areas may be of the knob-operated type always permitting egress."

29. Section 612.5.2 is deleted in its entirety and the following substituted in lieu thereof: "Hardware on doors shall comply with the following:

i. All pupil interior exits from auditoriums, gymnasiums, all-purpose rooms, cafeterias and spaces housing a capacity of 100 or more persons shall not be capable of being locked unless hardware of the panic type is used.

ii. Locks on all doors used by pupils, except where panic hardware is required, shall be only the knob-operated type permitting egress from the room at all times.

iii. All exterior exit doors, interior doors to pupil toilet and locker rooms, and fire or smoke-stop doors shall be equipped with approved self-closing devices. Individual classroom exit doors are exempt from this requirement.

iv. Hold-back devices are not permitted on any fire door except for smoke-stop doors and doors in corridors separating windowless classrooms. Such smoke doors shall be equipped with electromagnetic controls."

30. Section 612.6.1 is deleted in its entirety and the

following substituted in lieu thereof: "Glazing on doors shall comply with the following:

i. Exterior entrance and exit doors except emergency exit doors, shall contain panels of clear safety glazing materials, such as tempered glass, laminated glass, wire glass or rigid plastic, which meets or exceeds all requirements of the 'Safety Standard for Architectural Glazing Materials.'

ii. All interior glazing shall comply with the 'Safety Standard for Architectural Glazing Materials' with the following additional requirements:

(1) All glazed panels, doors and enclosures occurring in interior walls in corridors shall be glazed with clear or obscure wire glass.

(2) Rigid plastic shall not be used for any interior glazing."

31. Section 612.7 is deleted in its entirety and is included in the Barrier-Free Subcode.

32. Section 613.1 is deleted and the following substituted in lieu thereof: "Revolving doors shall not be used in public schools."

33. Section 615.0 Exitway Ramps is deleted in its entirety. The following is substituted in lieu thereof: "All ramps shall comply with the Barrier-Free Subcode."

34. Section 616.2.1 is amended to read as follows: "All interior exitway stairways shall be not less than 44 inches in width."

35. Section 616.3.2 is deleted in its entirety and the following substituted in lieu thereof: "In pupil-occupied education buildings the height of vertical rise between landings

and intermediate platforms shall not exceed nine feet. In all other buildings a stairway shall not have a height of vertical rise of more than 12 feet between landings and intermediate platforms."

36. Section 616.5.2 is amended by deleting and altering the following items:

i. In item No. 1 delete the number "forty-two(42)" and substitute "48."

ii. No change in item No. 2.

iii. In item No. 3 delete the number "forty-two(42)" and substitute "48."

37. Section 616.6.3 is deleted and the following substituted in lieu thereof: "In all public school facilities in excess of three stories in height, all doorway opening protectives, including the frames and hardware, shall be approved, self-closing fire doors. Labeled fire doors shall have a maximum transmitted temperature end point of not more than 450 degrees Fahrenheit above ambient at the end of 30 minutes of standard fire test exposure. Smoke screen doors in public school facilities less than four stories in height, shall be of Class 'C' quality, self-closing, swinging doors."

38. Section 616.7.1 is deleted in its entirety.

39. Section 616.11 is deleted in its entirety.

40. Section 619.1.1 is amended to change the word "tenant" in the second line to "classroom" and delete the word "tenant" in the tenth line.

41. Section 621.0 is deleted in its entirety, including subsection 621.1 through 621.3.2, and the following substituted in lieu thereof: "Fire escapes shall not be installed on new school

buildings. The use of fire escapes on existing buildings will be evaluated on a case-by-case basis. Where they are found necessary, they shall be in accord with the following:

i. Fire escapes shall be constructed of metal stringers, treads and platforms with a rise of not more than seven inches in height and treads not less than 10½ inches in width, projecting not more than one inch over the tread below. Treads and platforms shall have gratings of the reticulated or rectangular mesh type with bearing bars not more than three-quarter inch on centers, and crossbars not more than four inches on centers.

ii. Entrance platforms shall be not more than five inches below the adjoining floor. Entrance to the platform shall be by means of a door extending to the floor level. Platforms shall not be less than the width of the masonry opening of the doors which they serve.

iii. The stairs shall be not less than 38 inches wide between handrails supported by vertical steel members or concrete filled circular columns. Stairs shall extend uninterrupted to the ground level.

iv. Long flights of stairs shall be broken with intermediate landings not less than 42 inches wide, with each run at 90 or 180 degrees to the next higher or lower run. Stair runs of more than 15 risers are not permitted.

v. The outside stringers shall be protected by heavy galvanized wire-mesh screen or other approved protective railings not less than five feet high.

vi. Windows or doors located beneath or within 10 feet of fire escapes shall be glazed with approved one-quarter inch wire glass.

vii. Handrails shall be provided for each side of the stairs.

viii. Exit doors leading to fire escapes shall be not less than 32 inches clear width and equipped with bar-type panic hardware.

ix. Gates at the foot of a fire escape shall be equipped with panic hardware and be not less than four feet from the last riser."

42. Section 622.0 is deleted in its entirety and the following substituted in lieu thereof: "Slidescapes shall not be permitted."

43. Section 623.0 is deleted and the following substituted in lieu thereof: "Exit signs and lights shall comply with the following:

i. Exit lights shall be provided over exits from stairways, corridors, locker rooms, auditoriums, gymnasiums, cafeterias and places of assembly with a capacity of 50 or more persons. All exits shall be indicated with approved internally illuminated signs reading 'EXIT' in red letters at least six inches high on a white background or in other approved distinguishable colors, visible from the exitway access and, when necessary, supplemented by directional signs in the access corridors indicating the direction and way of egress. A minimum of five footcandles shall be maintained on the illuminated surface of the exit sign.

ii. All exit signs shall be illuminated from an emergency electrical system at all times when the building is occupied."

44. Section 624.0 is deleted in its entirety and the following substituted in lieu thereof: "Means of egress lighting shall comply with the following:

i. Emergency lighting shall be provided in new school buildings and additions for stairways, corridors, locker rooms, auditoriums, gymnasiums, cafeterias and places of assembly with a capacity of 50 or more persons. Alterations to the above listed areas shall include the installation or updating of emergency lighting.

ii. Emergency lighting shall be provided for any windowless instructional area which is not provided with natural illumination.

iii. The emergency lighting source of energy shall be a battery-type device, or a generator-type device.

iv. All emergency lighting systems shall provide full illumination automatically and within 10 seconds after normal source power failure.

v. The power supply source shall have a suitable rating and capacity to supply and maintain, at not less than 87½ per cent of the system voltage, the total load of the circuits or lamps supplying emergency light and emergency power for a period of not less than one-half hour.

vi. Equipment shall meet the following criteria:

(1) Individual unit equipment for emergency illumination shall consist of a rechargeable battery, voltmeter, automatic battery charger, test switch with ready light, one or more lamps, and a relaying device arranged to energize the lamps automatically upon failure of the normal supply to the area served. Batteries shall be communication grade lead-acid, nickel-cadmium, or equivalent quality to offer trouble-free service for a period of 10 years.

(2) Generator sets shall be of the type utilizing an internal combustion engine as the prime mover. Means shall be

provided for testing the units on failure of the normal supply to or within the building or group of buildings served. Automatic means shall also be provided for transferring those loads necessary to protect human life from the normal supply to the emergency supply. A time delay feature with a 15 minute minimum setting shall be provided to avoid short time reestablishment of the normal source. Fuel supply shall be provided sufficient to operate the prime mover at full demand for a period of not less than one-half hour. Where the means of starting the prime mover is a storage battery, it shall be communication grade lead-acid, nickel-cadmium or equivalent quality to offer trouble-free service for a period of 10 years. Batteries shall be provided with means for automatic charging.

vii. Installation criteria to be followed are as follows:

(1) All exit lights shall be wired to an emergency energy source and shall remain illuminated for a period of not less than one-half hour after normal power source is interrupted.

(2) All areas requiring emergency lighting and all other instructional areas shall be provided with a minimum of two lighting circuits and circuiting shall be arranged such that each area is fed from a minimum of two phases of the distribution system.

(3) Lighting fixtures in corridors shall be wired such that alternate fixtures are connected to separate circuits and circuits shall be arranged such that each section of corridors is fed from a minimum of two phases of the distribution system.

(4) Unit equipment shall be permanently fixed in place, and shall have all wiring to each unit installed in accordance with the National Fire Protection Association Standard No. 70. Units shall be wired to the electrical system without the use of cords and

plugs. Unit equipment shall be connected to the same branch circuits as those serving the lighting in the areas served and shall be connected ahead of any local switches.

(5) Emergency lighting systems which are served by generator type devices shall be provided with area protection in accordance with the following requirements:

(A) The control of the emergency source shall be fully automatic and not dependent upon the manual operation of any switch or device. The emergency source shall supply power to all areas requiring emergency lighting when a loss or reduction of normal source power occurs on any phase or line to a panel serving an area requiring emergency lighting due to breaker opening, fuse failure or removal, cable failure, utility source failure or similar conditions.

(B) The emergency lighting system shall include an approved control panel for area protection. The control panel shall include low voltage sensing devices (three for three-phase and two for single-phase systems) capable of detecting a reduction in normal source voltage to approximately 60 per cent of rated source voltage, coded visual indication of the space experiencing the power failure, and isolated means for activating the emergency source. A break in any conductor feeding the control panel shall cause a failure indication.

(C) The control panel shall be enclosed in a metal cabinet with hinged door and lock. It shall be located in a clean, dry location where it will be conspicuous and readily accessible at all times.

viii. Emergency lighting systems, other than unit systems

utilizing floor or spot light type distribution, shall produce and maintain for a period of one-half hour a minimum intensity of 0.5 footcandle, measured on a horizontal plane 30 inches above the floor.

ix. Where unit storage battery systems utilizing floor or spotlight type of distribution are used, the throw of each beam shall not exceed 50 feet. The projectors shall be directed towards the exits and located so as to provide distribution of light over the entire floor area."

45. Section 625.0 is amended to add the following item: "Built-in equipment, display cabinets and lockers erected in corridors or exitways shall be of noncombustible construction."

(g) Article 7 of the BOCA Basic Building Code, entitled "Structural and Foundations Loads and Stresses" is amended as follows:

1. Section 705.4 is amended to delete the phrase "within the limitations prescribed in Sections 106.4 or 106.5."

2. Section 706.1 is amended to include the following item in addition to Table 706:

Occupancy or Use	Live Load Pounds Per Square Foot
Assembly halls and other places of assembly	
Auditoriums with sloping or stepped floor and fixed seats	60
Movable or fixed seats on level floor	100
Stage floor	150
Platforms (assembly)	100
Balconies (auditoriums)	
Fixed seats	60
Movable seats	100
Cafeterias	100
Corridors	100
Floor over boiler room	80
Kitchens	100
Laboratories	60
Locker room, gymnasium	80
Mechanical equipment rooms	100
Shops	
For light operations	125
For agriculture, machinery, automobile repair	150
Stairs, landings and fire escapes	100
Store rooms	100
Toilet rooms	60

3. Section 710.4 is amended by adding the following to this section: "Flat roofs shall not be accepted. Roofs shall be designed with a minimum of one-eighth inch to the foot pitch to provide positive drainage and minimize ponding."

(h) Article 8, Part A of the BOCA Basic Building Code, entitled "Materials and Tests" is amended as follows: Section 819.2.1 is deleted and the following substituted in lieu thereof: "The building official shall be notified of intent to close in by requesting a preliminary inspection in accord with N.J.A.C. 6:22-1.17 of the school code."

(i) Article 9 of the BOCA Basic Building Code, entitled "Fireresistive Construction Requirements" is amended as follows:

1. Section 902.1 is amended by adding the phrase "and as modified by the school code."

2. Section 903.1 is amended by adding to the first sentence the phrase "and as modified by the school code."

3. Section 905.0 is amended by adding the following item: "Powered grounds equipment, automobiles, and other internal combustion type engines when housed within a school building shall be in rooms the floors, walls and ceilings of which have a fire resistance rating of not less than one hour. When an interior door is provided, it shall be a class 'B' hinge-type fire door equipped with approved self-closing hardware and a sill height of 18 inches in accordance with the requirements outlined by N.F.P.A. Standard No. 70, as amended. Such doors shall be lettered 'Fire Door -- Keep Closed.' Equipment powered by internal combustion type engines may also be housed in a

separate building of noncombustible construction. A wood roof shall be permitted provided the ceiling has a one-hour resistance rating. A building of combustible construction shall also be permitted provided that no such structure shall be located closer than 100 feet to any pupil occupied building."

4. Section 905.1 is amended by adding the following sentence: "Stage framing and platform risers in music rooms and science rooms when built-in shall be of noncombustible construction."

5. Section 911.1 is amended by adding the phrase "as modified by the school code."

6. Section 913.1 is amended by adding the phrase "and as modified by the school code."

7. Section 915 entitled "Fire Doors" shall be amended by adding the following new items:

i. "All labeled self-closing fire doors except electromagnetically controlled doors shall be lettered on both sides 'Fire Door -- Keep Closed.' A sign attached to the door is not acceptable.

ii. The fire doors installed in heater rooms shall be hinged and swing into the heater room.

iii. Smoke-stop doors, except electromagnetically controlled doors, across corridor or openings into stairways shall be lettered on each side with non-movable letters 'Smoke Door -- Keep Closed.'"

8. Section 917.2 is amended by deleting the last sentence and adding the following in lieu thereof: "Such vision panels shall not exceed the following limitations:

i. School buildings one through three stories, one-quarter inch wired glass panels not exceeding the limitations for a three-quarter hour class 'C' door.

ii. School buildings over three stories in height, one-quarter inch wired glass panels not exceeding the limitations for a class 'B' door."

9. Section 920.2 is amended to add the following: "Concrete floors in all instructional areas except shops shall be covered with a resilient floor covering."

10. Section 920.5 is amended to add: "The spraying-on of surface coatings which contain asbestos shall not be permitted."

11. Section 920.7 is deleted in its entirety and the following substituted in lieu thereof:

i. "All carpeting together with its backing or underlayment shall have passed the flame spread requirement of 75 or less as per American Society for Testing and Materials 84-77.

ii. Carpeting shall not be used except as a floor covering."

(j) Article 10 of the BOCA Basic Building Code, entitled "Chimneys, Flues and Vent Pipes" remains unchanged.

(k) Article 11 of the BOCA Basic Building Code, entitled "Mechanical Equipment and Systems" is amended as follows:

1. Section 1100.2 is amended by adding the following: "Nothing herein contained shall be deemed to nullify requirements of the State Department of Labor and Industry."

2. Section 1102.1 is amended to read "All boilers and unfired pressure vessels subject to the provisions of this article shall be inspected at least once annually by or under the supervision of the State Department of Labor and Industry."

3. Section 1102.4 is amended by adding the following: "Boiler records and inspections shall be maintained as required by N.J.S.A. 34:7-1 et seq."

4. Section 1105.1, "Boiler room," is amended by adding the following items:

i. "Existing boiler rooms and existing rooms which house flame operated equipment or incinerators, shall be upgraded to comply with all present regulations when new equipment is installed or the method of firing such equipment is modified or changed or the equipment is enlarged.

ii. Heater rooms, having any type of combustible equipment, with an area of 100 square feet or more shall have two exits remote from each other; one shall be to the exterior of the building. Interior doors, when provided, shall be hinged to swing into the room.

iii. Not less than two emergency cut-off switches for all heating furnaces shall be provided to disconnect the burner and fuel supply. The switches shall be clearly lettered and conveniently located, one at or near each exit doorway.

iv. No gas or oil fired unit ventilator or hot water heater shall be permitted in classrooms.

v. Fan rooms, mechanical rooms, and main electrical equipment rooms shall be provided with hinge-type, self-closing, 'C' label fire doors lettered 'Fire Door -- Keep Closed.'"

5. Article 11 is amended by adding a section on gas installations consisting of the following items:

i. "A check valve shall be installed in the line supplying gas to each classroom, laboratory, shop, or other area where gas is used by students, except home economics rooms.

ii. The shut-off valve at the gas meter shall be equipped with a handle or lever to permit easy operation of the valve. The 'OFF' and 'ON' position shall be plainly marked. The valve at exterior meters where unauthorized persons may shut the gas off need not be furnished with a handle or lever.

iii. The gas meter and the shut-off valve shall be located so as to be conveniently accessible to building operation personnel. The valve shall be identified by an appropriate sign or tag.

iv. All gas piping installations within public school buildings shall be in accordance with the National Fire Protection Association Standard No. 54 as amended.

v. Gas supply lines at each point of entry, exit, or reentry into a school building shall be encased in a conduit, which conduit shall extend into a normally usable and accessible portion of the building and at the point where the conduit terminates in the building, the space between the conduit and the gas piping shall be sealed to prevent the possible entrance of any leakage. The conduit shall extend at least four inches outside and be vented above grade. Vent pipes shall terminate outside the building the building at a point not less than two feet measured vertically or horizontally from any window or other building opening. The outer end of vent pipes shall terminate in a weather-proof and securely fastened vent cap. They shall terminate sufficiently above the ground to avoid being obstructed with snow and shall be secured firmly to the building. The entire installation shall be such that the gas piping can be readily replaced without damage to the building. Vents in courts shall be extended to not less than five feet above the roof.

vi. The line supplying gas to each instructional room, laboratory, shop or other space where gas is used by students, except home economics areas, shall be provided with an electric solenoid key-operated gas shut-off switch."

(1) Article 12 of the BOCA Basic Building Code, entitled "Fire Protection Systems" is amended as follows:

1. Section 1200.3 is amended to delete the words "fire department" (in the second and third sentences) and in lieu thereof, substitute "fire protection subcode official."

2. Section 1200.6 is amended to delete the phrase "(see Section 108.0)."

3. Section 1201.1 is amended to delete the word "department" on line three and in lieu thereof, substitute "fire protection subcode official." The words "the fire department" on lines four and six are to be deleted and in lieu thereof, substitute "the fire protection subcode official."

4. Section 1202.5.6 is amended to insert the words "below or contiguous to assembly stage" after "property rooms."

5. Section 1202.5.7 is amended to add the following phrases: "below or contiguous to the assembly stage."

6. Section 1202.19 is amended to delete the words "building official and fire department" and substitute "Bureau director" in lieu thereof.

7. Section 1216.2 is amended to delete the last sentence and substitute the following in lieu thereof:

i. "The automatic fire detection system shall comply with National Fire Protection Association Standard No. 72 E and shall utilize:

(1) A combination fixed-temperature and rate-of-rise type device; or

(2) Devices to detect abnormal visible smoke densities or gaseous products of combustion; or

(3) An automatic fire suppression system equipped with automatic fire alarm devices; or

(4) A combination of the above three types of detecting devices except that a fixed-temperature detector shall be permitted

in approved locations such as in a boiler room or incinerator room.

(5) These rules are applicable to the construction of new buildings, new additions and alterations to existing fire detection systems."

8. Section 1216.3 is amended by adding the following item: "Assembly (A-4) Use. In all new and existing buildings of use groups A-4 (assembly-educational). Where an addition is provided to an existing automatic fire detection system exempted building, the entire structure shall be brought into compliance."

9. Section 1216.8 is deleted and the following substituted in lieu thereof: "An emergency source of energy shall be provided. This may be by use of a generator or dry or wet batteries to operate a trouble bell or light indicating failure of the external source of power for the fire alarm system."

10. Section 1217.4 is deleted in its entirety and the following substituted in lieu thereof: "Manual fire alarm boxes shall be provided in the natural path of escape from fire, near each exterior door from the corridor, kitchen, heater room and other exterior exits that are required to serve 75 or more persons. Additional fire alarm boxes shall be located in the main office, stage, at each stairway entrance from a corridor or place of assembly and near one exterior exit in each section of a place of assembly. It shall not be necessary to traverse more than 200 feet of unobstructed horizontal distance on the same floor in order to reach a fire alarm box."

11. Section 1217.6 is deleted and the following substituted in lieu thereof: "An emergency source of energy shall be provided. This may be by use of a generator or dry or wet batteries to operate a trouble bell or light indicating failure of the external source of

power for the fire alarm system. Every school district is urged to provide an emergency source of energy of sufficient size and type to maintain the automatic fire detection and manual alarm system for not less than 24 hours. Batteries when used shall have a minimum shelf life span of not less than one year. When an emergency source of power is provided, the system shall be so designed that automatic switching of emergency power is provided in case of main power failure. The change shall be accomplished without interruption of service and shall not cause a fire alarm signal but shall cause both visual and audible trouble signals to respond. Automatic return to normal shall be provided when the primary supply is restored. In addition to the trouble alarm signals, separate and distinct audible and visual fire alarm signals shall be provided. A silencing switch shall be provided for the audible trouble signals and so arranged that a trouble light will be energized at all times when the switch is in off-normal position."

12. Section 1217.7.2 is amended by adding the following: "An individual alarm signal shall be provided in music rooms and physical education locker rooms. All fire alarm signals shall be automatically locked in at the control panel until manually reset. The manual reset switch shall be of the self-restoring type which cannot be left in an abnormal position and shall be enclosed within the control cabinet or located so as not to be readily accessible to unauthorized personnel."

13. Section 1217.7.3 is amended by adding the following: "A pre-signal system may be installed in public school buildings when approved by the Bureau director and with the written acceptance of the local fire department."

14. Section 1218.2 is deleted in its entirety and the following substituted in lieu thereof: "It is recommended that the internal fire protection system be connected to an approved central station system, proprietory system, or remote station system of the jurisdiction when acceptable to the fire department. An exterior fire bell and flashing or revolving light shall be provided to alert outsiders in the event the building is not occupied, except that school buildings directly connected to a municipal or approved central alarm office or fire house shall be exempt."

15. Article 12 is amended by adding a section on fire extinguishers to include the following items:

i. "Fire extinguishers shall be dry chemical type suitable for use on Class A, B and C fires (multi-purpose). Extinguishers shall carry a rating of at least 2A in addition to its class B and C ratings. The location of fire extinguishers shall be indicated on the plans and installed prior to occupancy.

ii. Extinguishers in corridors shall be housed in a special cabinet or in a recessed wall rack clearly identified and readily accessible at all times. When the cabinet is glazed, only wire plate glass shall be used. They shall be so distributed that one extinguisher shall be not more than 75 feet travel distance from any point in the corridor, and so that there will not be less than one extinguisher for each 6,000 square feet of floor area or fraction thereof.

iii. Extinguishers having a gross weight not exceeding 20 pounds shall be installed so that the top of the extinguisher is not more than five feet above the floor. Extinguishers having a gross weight greater than 20 pounds (except wheel-types) shall be

installed so that the top of the extinguisher is not more than 40 inches above the floor.

iv. For hazardous locations, including but not restricted to shops, science laboratories, stages, faculty rooms, home economics rooms, kitchens, garages and heater rooms, at least one 10 BC rated extinguisher shall be provided. These shall be in addition to those required in corridors.

v. Fire blankets of the type listed by Underwriters Laboratories, Inc. shall be provided in all home economics rooms and in all kitchens. A fire blanket shall be properly mounted in a readily accessible and highly visible location within the room.

vi. The owner or occupant of a property in which portable fire extinguishers are located shall be responsible for the inspection, maintenance and recharging of such equipment in accordance with National Fire Protection Association Standard No. 10 (1978)."

(m) Article 13 of the BOCA Basic Building Code, entitled "Precautions During Building Operations" remains unchanged.

(n) Article 14 of the BOCA Basic Building Code, entitled "Signs" is amended by inserting the phrases "Bureau director or his/her authorized representative" in lieu of "building official," wherever this occurs. In addition, the following item shall be amended:

1. The last sentence in Section 1403.1 is deleted and the following substituted in lieu thereof: "If corrective action is not conducted within the prescribed time, appropriate action will be taken as listed in N.J.A.C. 6:22-1.23(e)."

(o) Article 15 of the BOCA Basic Building Code, entitled "Electric Wiring and Equipment" is deleted in its entirety and

"See Electrical Subcode" is substituted in lieu thereof.

(p) Article 16 of the BOCA Basic Building Code, entitled "Elevator, Dumbwaiter and Conveyor Equipment, Installation and Maintenance" is amended by inserting the phrase "Bureau director or his/her authorized representative" in lieu of "building official" wherever this occurs, and by the following amendments:

1. Section 1600.2 is amended by deleting from the second line the phrase, "and except where more restrictive provisions govern."

2. Section 1602.4.1 is amended by deleting the phrase "six (6)" in line two and "twelve (12)" in line three and substitute "12" and "24" respectively.

3. Section 1603.4 is deleted in its entirety and the following substituted in lieu thereof: "The owner or leasee shall post a copy of the last issued certification of compliance in a conspicuous place inside all elevator cars and on or adjacent to the entrance to all other approved equipment. The original of such certification shall be conspicuously displayed in the main office of the building in which the equipment is located."

4. Section 1604.4 is amended to delete the phrase "or not in accord with the provisions of this code" on lines two and three.

5. Section 1605.0, "Existing Installations," is deleted in its entirety.

(q) Article 17 of the BOCA Basic Building Code, entitled "Plumbing Systems" is deleted in its entirety and "See Plumbing Subcode" substituted in lieu thereof.

(r) Article 18 of the BOCA Basic Building Code, entitled "Prefabricated Construction" is deleted in its entirety and the following substituted in lieu thereof: "Premanufactured units

including relocatable classrooms shall comply with all aspects of the school code."

(s) Article 19 of the BOCA Basic Building Code, entitled "Light-Transmitting Plastic Construction" is amended by inserting the phrase "Bureau director or his/her authorized representative" in lieu of "building official" wherever this occurs.

(t) Article 20 of the BOCA Basic Building Code, entitled "Energy Conservation" is deleted in its entirety and "See Energy Subcode" substituted in lieu thereof.

SUBCHAPTER 3. BARRIER-FREE SUBCODE

6:22-3.1 Purpose

This standard is intended to make school buildings accessible to, and functional for, the physically handicapped, thus enabling them to live a fuller life more commensurate with that enjoyed by the able-bodied. It fulfills the mandate of the New Jersey Legislature in N.J.S.A. 18A:18A-17 and 17.1 for a state standard Barrier-Free Design Code.

6:22-3.2 Scope

(a) This standard applies to the construction of all buildings, structures, and facilities to be used for school purposes.

(b) This standard applies to temporary or emergency conditions as well as permanent conditions, but does not apply to buildings temporarily placed or constructed on construction sites for use by construction personnel. Examples of the latter include on-site construction trailers and portable latrines.

(c) This standard shall be applied in cases of remodeling.

6:22-3.3 Appeals

(a) The Department of Education, Bureau of Facility Planning Services (hereafter, the Bureau) shall be responsible for the enforcement of this standard with respect to all construction or remodeling of public school facilities.

(b) Decisions of the Bureau pursuant to or related to this standard may be appealed in writing in accordance with N.J.A.C. 6:22-1.24.

(c) Appeals under subsection (b) of this section may be submitted by a board of education or by any other citizen of the State of New Jersey.

(d) In cases of practical difficulty, the Commissioner of Education or his duly authorized representative, may grant exceptions from the specific requirements and specifications required by this standard, or permit the use of other methods or materials, but only when it is clearly evident that equivalent facilitation and protection for the physically handicapped are thereby secured.

(e) Exceptions based on practical difficulty, unnecessary hardship or extreme differences shall apply to the specific requirement in question, and shall not extend to all requirements mandated by this standard.

(f) Whenever an exception from the specific requirements of this standard is granted, the Commissioner of Education shall, in each case, prepare a statement of the exception and the means by which equivalent facilities and protection for the physically handicapped are secured. A record file of such statements, properly indexed, shall be kept by the Bureau and shall be subject to public inspection during business hours.

6:22-3.4 Definitions

The following words and terms, when used in this Subchapter shall have the following meanings unless the context clearly indicates otherwise.

"Addition," as applied to a building, means any construction which increases the area or the height of any portion of the building.

"Alteration," as applied to a building, means any change to the existing structure, existing use, and/or permanent fixture or equipment which does not include any increase in the area or height of any portion of the building.

"Assessed value" means the value set by assessment in accordance with procedures in N.J.S.A. 54:4-23 ("Assessment of Real Estate").

"Deaf or hard-of-hearing" means auditory limitations that might make an individual insecure because he/she is unable to communicate or hear warning signals.

"Facility for handicapped people" includes any ramp, handrail, elevator, door, specially treated surface and similar design, convenience or device which facilitates the health, safety or comfort of a handicapped person.

"Faulty coordination disability" means incoordination or palsy from brain, spinal or peripheral nerve injury.

"Fixed turning radius, structure" means the turning radius of a wheelchair, left front-foot platform to right rear wheel, or right front-foot platform to left rear wheel, when pivoting on a spot.

"Fixed turning radius, wheels" means the tracking of the caster wheels and large wheels of a wheelchair when pivoting on a spot.

"Handicapped person" means a person or persons who may be classified as having a physical impairment which manifests itself in one or more of the following ways: nonambulatory; semi-ambulatory; visually impaired; deaf or hard-of-hearing; having faulty coordination; and having reduced mobility, flex-

ibility, coordination or perceptiveness due to age, physical or mental conditions.

"Involved (involvement)" means a portion or portions of the human anatomy or physiology, or both, that have a loss or impairment of normal function as a result of genesis, trauma, disease, inflammation or degeneration.

"Manually operated doors" means doors operable by a single effort with a maximum push or pull of eight pounds, with the exception of fire doors which may have a maximum push or pull as per the governing code.

"Nonambulatory handicap" means an impairment that, regardless of cause or manifestation, for all practical purposes, confines individuals to wheelchairs.

"Parking lot" means any area, inside or outside a building, set aside for the parking of three or more vehicles with or without charge to the owners of these vehicles.

"Public assembly area" means any area wherein large numbers of individuals collect to participate or to observe programs of participation. The most common of these are auditoriums, stadiums, gymnasiums or comparable facilities.

"Public school facility" means any building or any part thereof where the plans and specifications are submitted to, and approved by, the State Board of Education pursuant to N.J.S.A. 18A:18A-16.

"Ramps" means a graded walkway connecting two level areas of different elevation and providing a smooth transition between such areas. Ramps may be either interior or exterior. The exterior type are those associated with graded walkways that

deviate from the slope of the adjacent ground:

1. Ramps may have a maximum grade of 8.33 per cent pitch.

2. Although a maximum grade of 8.33 per cent pitch is acceptable, the more the ramp approaches level, the more usable and convenient it becomes for all people.

"Remodel" means, with respect to an existing school building, to construct an addition, alter the design or layout of said building so that a change or modification of the entrance facilities, toilet facilities or vertical access facilities is achieved, or make substantial repairs or alterations. (See definition of "substantial repairs or alterations" in this section.)

"Route of travel" means:

1. The path to be traversed by the handicapped from the exterior of the premises (either at the public sidewalk in front of the primary public entrance of a building, and/or at one or more designated parking lots that serve the building), to the interior of the building and continuing via stairs, elevators or ramps to all major floor areas of the building. More than one such route shall be known as "routes of travel". The term shall also include the return trip to the exterior of the premises from any major floor area.

2. For buildings in a complex, the term "route of travel" shall include the paths traversed between buildings serviced by the same parking lot. For outdoor areas such as school athletic fields and playgrounds, the term shall include the paths necessary for the handicapped to participate in all

activities within the area.

"Semi-ambulatory handicap" means an impairment that causes individuals to walk with difficulty or insecurity. Individuals using braces or crutches, amputees, arthritics, spastics and those with pulmonary and cardiac ills may be semi-ambulatory.

"Story" means any of the floor levels, one above the other, into which a multi-storied building (a building containing two or more stories) is divided horizontally. For the purpose of this standard, the decks of grandstands, arenas and stadiums are considered stories. Also, floor levels, including basements and roofs, used for the parking of automobiles are considered stories. However, balconies of theaters and gymnasiums are not considered stories.

"Substantial repairs or alterations" means a repair or alteration which cost equals or exceeds 30 per cent of the assessed value of the building undergoing the repair or alteration. (See definition of "assessed value" in this section.)

"Visual impairment" means total blindness or impairments affecting sight to the extent that the individual might be insecure or exposed to danger.

"Walk" means an exterior pathway leading to or from a building or from one exterior area to another, that has an all-weather, hard surface of uniform width, a predetermined direction and is considered as a part of a route of travel as defined herein.

6:22-3.5 Substantial repairs and alterations

(a) If the cost of making repairs or alterations shall exceed 60 per cent of the assessed value of the building, the entire building shall be made to comply with requirements of this standard.

(b) Should the cost of making repairs or alterations be between 30 per cent and 60 per cent of the assessed value of the building, only those portions of the building repaired or altered shall be made to comply with the requirements of this standard.

(c) When the cost of making repairs or alterations is under 30 per cent of the assessed value of the building, such repairs or alterations shall be either in accordance with the requirements of this standard or in compliance with the previously required condition and with the same or equivalent material or equipment, provided the general safety and public welfare are not thereby endangered.

6:22-3.6 Site development

(a) Site development is the most effective means to resolve the problems created by topography, definitive architectural designs or concept, water table, existing streets and atypical problems, singularly or collectively, so that ingress and egress to buildings by physically handicapped people can be facilitated while preserving the design and effect of the architecture.

(b) Access by means of grading approach ramps or walks shall be provided for all buildings.

(c) All walks shall meet the following criteria:

1. Be at least 48 inches wide:

i. Where considerable traffic of persons in wheelchairs is anticipated, walks should be at least 60 inches wide to allow simultaneous passage of wheelchairs in each direction.

2. Have a gradient no more than five per cent, though walks which approach level are preferred:

i. It is essential that the gradient of walks be less than that of ramps, since walks are normally considerably longer and more vulnerable to the elements.

ii. Techniques such as terracing and winding walks are valuable in providing more gradual inclines. Pathways over five per cent gradient are considered ramps and shall meet the specifications in N.J.A.C. 6:22-3.7 (a).

3. Be of continuing common surface not interrupted by steps or abrupt changes in level. Where walks intersect other walks, driveways, parking lots or streets, the intersection must either be at a common level or shall blend to a common level with curb cuts or ramps.

i. It is not the intention here to completely eliminate curbs which are a distinct safety feature, warning the visually impaired of possible vehicular traffic.

ii. To allow persons with nonambulatory handicaps to negotiate curbs, cuts or ramps must be provided. Details of their construction are prescribed jointly by the Department of Transportation; Commission for the Blind; and the Department of Labor and Industry, Division of Vocational Rehabilitation,

pursuant to N.J.S.A. 52:32-14 through 52:32-16.

4. Have a non-slip surface.

5. Have level areas, for rest, at least five feet long every 100 feet whenever the gradient is between three per cent and five per cent.

6. Be level from side to side or have a maximum transverse slope for drainage of one-eighth inch per foot.

7. Have handrails whenever the surface of the walk is more than 24 inches above the abutting surface. Handrail specifications in N.J.A.C. 6:22-3.7(a)3 must be followed.

(d) Where parking lots are provided, designated parking spaces for handicapped persons shall be required as follows:

TOTAL PARKING IN LOT	REQUIRED NUMBER OF ACCESSIBLE SPACES
Up through 50	1
51 through 200	2
Over 200	1% of total spaces in lot

(e) Designated parking spaces for handicapped drivers shall be as close as possible to the accessible primary public entrance or entrances (see N.J.A.C. 6:22-3.7(b) to the building, and shall be identified with a clearly visible sign mounted off the ground displaying the International Symbol of Access and containing appropriate wording such as "This space reserved for physically handicapped drivers only."

(f) Parking spaces for individuals with physical handicaps shall be 12 feet wide with an unobstructed, level, paved surface that is suitable for wheeling and walking.

1. Such parking spaces shall allow room for individuals in wheelchairs or individuals on braces and crutches to get in and out of either side of an automobile.

2. A standard parking space parallel to a curb may constitute an acceptable space for handicapped parking providing it allows sufficient area for individuals in wheelchairs or individuals on braces and crutches to get in and out of either side of an automobile onto a level, paved surface that is suitable for wheeling and walking, and affords access to the building.

3. Care in planning should be exercised so that individuals in wheelchairs and individuals using braces and crutches are not compelled to wheel or walk behind parked cars.

(g) Where applicable, curb ramps shall be provided to permit handicapped people access from parking area to sidewalk.

(h) All parking area walks shall be in conformity with subsection (c) of this section.

6:22-3.7 Buildings

(a) Where interior or exterior ramps with gradients are necessary or desired, they shall conform to the following specifications:

1. A ramp shall have a grade not greater than the equivalent of one foot rise for every 12 feet of length (or 8.33 per cent pitch).

2. The width of the ramp shall be a minimum of 36 inches clear, exclusive of handrails:

i. Where considerable traffic of persons in wheelchairs is anticipated, ramps should be 60 inches wide to allow simultaneous passage of wheelchairs in each direction.

3. A ramp shall have continuous handrails on two sides. The handrails shall be 32 inches in height, measured perpendicular from the surface of the ramp, and shall extend one foot beyond the top and bottom of the ramp. There shall be a clearance of at least 1½ inches between the handrail and the wall or other obstructions. The handrails shall be 1½ inches in diameter at the grasping surface:

i. Handrails should be non-slip.

ii. Handrails are used for pushing, pulling, lifting and support. They must be sturdy and non-slip. Squared corners and points are safety hazards.
The face of the handrail should have a rounded surface, easy for a person to hold.

iii. Care shall be taken that the extension of the handrail is not in itself a hazard. The extensions may be made on the side of a continuing wall.

iv. Where major traffic is predominantly children, particularly physically handicapped children, extra care should be exercised in the placement of handrails, and in accordance with the nature of the facility and the age group or groups being serviced.

4. A ramp shall have a surface that is non-slip.

5. When it is necessary for a ramp to exceed 30 feet in length, the ramp shall have level areas at least four feet

long at no more than 30 foot intervals and at each turning point.

6. Each ramp shall have at least five feet of level clearance at the top and bottom. Additionally when a ramp terminates at a door, the level area shall extend at least one foot beyond each side of the doorway opening and 30 inches beyond the outswinging arc of the door, see subsection (b) of this section.

(b) At least one primary public entrance shall be constructed in a manner that makes the building accessible to individuals with physical handicaps. Access shall be achieved through an auxiliary, permanently fixed ramp, or through grading the ground, even contrary to existing topography, so that it attains a level with the primary public entrance or entrances.

1. A primary public entrance is an entrance frequently used by the general public. In many instances, such entrances connect a parking area with a rear entrance; thus , a primary public entrance is not necessarily the front entrance. In selecting primary public entrances to be accessible to, and usable by, the physically handicapped, consideration must be given to what primary public entrances will best meet the needs of physically handicapped people.

2. Because ingress and egress are important, especially in cases of emergency, it is preferable that all entrances and exits to and from the building should be accessible to, and usable by, individuals in wheelchairs and individuals with other forms of physical handicap herein

applicable. In the interest of fire safety, whenever possible, at least two such entrances and exits should be provided.

3. Such primary public entrances shall include, but not be limited to, those connecting with public transportation stops; public entrances connecting with parking areas specially designated for the handicapped; and entrances connecting with walkways, between buildings in a given complex.

4. A level area shall be provided at each primary public entrance. The minimum depth of this area shall be five feet or 30 inches beyond the outswinging arc of the door, whichever is greater. The minimum width of this area shall be five feet or one foot beyond each side of the doorway opening, whichever is greater.

5. No obstructions to the passage of a wheelchair shall be placed in the route of travel between the designated primary public entrance and connecting parking lots, public transportation stops, etc. Examples of prescribed obstructions are turnstiles, vertical posts spaced less than 32 inches apart, and any chain or other mechanical device requiring opening or removal by other than the handicapped person attempting to accomplish passage.

(c) Doors and doorways shall be designed to include the following features:

1. Exterior and interior doors shall have a clear opening passageway of no less than 32 inches when the door is open and shall be operable by a single effort.

2. The manual pull or push on a door shall not exceed eight pounds in order to operate the door. Doors requiring greater force to activate are to be equipped with compensating spring-loaded devices to reduce the force to a maximum of eight pounds, or be otherwise equipped for automatic operation. Exempted from this requirement are fire doors which may have a maximum push or pull as per the governing code.

i. Doors solely dependent on electrical devices shall, in cases of power failure, be manually operable under provisions of paragraph 2 of this subsection.

ii. Levered handles are extremely beneficial to handicapped people. It is recommended that they be used in place of door knobs.

3. Where revolving doors are used, an auxiliary, hinged door having a clear opening passageway of not less than 32 inches shall be provided adjacent to the revolving door. This door shall be unlocked whenever the revolving doors are unlocked.

4. Where vestibules are provided, the distance between doors shall be not less than six feet six inches, and all doors shall swing in the same direction.

5. The floor on the inside and outside of each doorway shall be level for a distance of at least five feet from the door, and on the pull side of the door the distance from the edge of the door to the perpendicular wall shall be a minimum of one foot.

6. Raised thresholds should be avoided, but where necessary shall not be higher than three-fourths inch and beveled with the slope not to exceed 45 degrees.

i. It is recommended that when appropriate all doors have kick plates extending from the bottom of the door to at least 16 inches from the floor, or be made of a material and finish that would safely withstand the abuse that might be received from canes, crutches, wheelchair foot-platforms or wheelchair wheels.

(d) Stairs shall be designed to include the following features:

1. Such stairs shall be located conveniently to the exterior door that is within the route of travel, and shall meet all requirements of the governing codes.

2. Such stairs shall be constructed without abrupt (squared) nosing. The surface of risers may be sloped, as long as the total horizontal projection of the riser does not exceed 1½ inches.

3. All stairs should be provided with permanent, flush, non-slip nosings and/or treads.

4. Stair risers should not exceed seven inches.

5. Handrails shall be set 32 inches above the stairs measured vertically at the nosing. Handrails on each stair flight shall extend one foot beyond the top step and the bottom step, at a height of 36 inches above the level of the landing.

6. Handrails shall be 1½ inches in diameter at the grasping surface, and shall provide 1½ inches in clearance between the handrail and the wall and/or support surface.

i. Care should be taken to design the handrail extensions so that they, in themselves, will not become a hazard. The handrail extensions should be on the side of a continuing wall.

7. Handrails should be non-slip.

(e) Floors shall be designed to include the following features:

1. Floors on a given story shall be a common level throughout, or be connected by a ramp in accordance with subsection (a) of this section, except that thresholds meeting requirements of subsection (c) of this section may be used. Balconies and bleachers are not required to conform to this requirement.

i. For example, there shall not be a difference between the level of the floor of a corridor and the level of the floor of the toilet rooms, unless ramps in accordance with subsection (a) of this section are provided:

(1) Because floors on a given story shall not vary in level, consideration should be given to depressing toilet floor construction, if ceramic tile is used to provide for common level.

ii. For another example, there shall not be a difference between the level of the floor of a corridor and the level of a meeting room, dining room, or any other room,

unless ramps in accordance with subsection (a) of this section are provided.

2. In the interest of mobility and safety, extra effort and consideration should be given to the procurement and installation of non-slippery floor surfaces and/or floor finishes.

i. For example, all wax used for flooring should be non-slip wax.

ii. For another example, all square edge ceramic tile floors in showers and wet areas should be non-slip tile containing 7.5 per cent abrasive grain content. Where square edge ceramic tile is not used, a non-glazed, cushioned-edge ceramic tile is satisfactory.

(f) Elevators shall comply with the following standards:

1. Every multi-storied building shall provide at least one elevator that is accessible to, and usable by, physically handicapped people.

2. Elevators designated as accessible to, and usable by, the physically handicapped shall comply with the following requirements:

i. Such elevators shall be identified by a plaque containing the International Symbol of Access. This plaque shall be done in relief and shall be located immediately adjacent to the floor call button. If a central floor call button is used (one call button for all elevators), then the plaque shall be located immediately adjacent to the elevator or elevators designated as accessible to, and usable by, the physically handicapped.

ii. To facilitate its use by the visually impaired, the call button's floor numbers shall be done in relief.

iii. In no case shall interior cab dimensions for elevators that are accessible to, and usable by, the physically handicapped be less than 44 inches deep by 56 inches wide.

iv. The top of interior cab automatic control panels, floor call button panels, and emergency intercommunication systems shall be no higher than four feet from the finished floor, and the bottom of such panels and systems shall be mounted no lower than two feet from the finished floor, and such panels and systems shall have numbers done in relief on buttons or face plate to facilitate their use by the visually impaired:

(1) The button for bringing the elevator to the primary public entrance should be different in both form and color from other buttons.

(2) To facilitate its use by visually impaired people, all lettering and numbering should be no less than three-quarter inch high and done in relief.

v. The elevator and shaft doors shall provide a clear opening passageway of at least 32 inches in width, and shall be timed to remain open for at least nine seconds with time to close adjusted to a minimum of a three second delay.

vi. All elevators shall be so adjusted/controlled that the floor of the elevators when stopped will conform to building floor levels within one-half inch tolerance.

vii. A qualifying elevator shall be either operated by a trained operator during the normal operating hours of the building, or it shall be of automatic type. If special key or part-time elevator attendant is required for operation of the elevator, an identified attendant call button shall be provided adjacent to the elevator.

viii. Handrails shall be provided on all sides of the elevator cab where doors do not occur, with the top of such handrails mounted 32 inches above the floor. Such handrails should be non-slip.

ix. The elevator control shall provide audible and visual signals on a three second delay when doors are about to close.

x. An illuminated floor indicator shall be installed in the cab.

xi. The elevator shall provide stops at each story of the buildihg, including stories used exclusively for the parking of automobiles, except that stops are not required at stories containing only mechanical equipment.

(g) Toilet rooms and shower rooms shall be designed to include the following features:

1. Toilet rooms shall have space to allow traffic of individuals in wheelchairs, in accordance with N.J.A.C. 6:22-3.8 (a) through 3.8 (c).

2. Toilet rooms with stalls shall have at least one toilet stall that:

i. Is at least five feet wide.

ii. Is at least four feet eight inches, preferably five feet, deep.

iii. Has an entrance that provides a minimum clear opening of 32 inches.

iv. If a door is used, it shall swing out from the stall and not obstruct traffic outside the stall. Wherever doors are used on other stalls they shall also be used on stalls accessible to, and usable by, handicapped people.

v. Has a water closet with the seat 16 to 18 inches (normal standard) from the finished floor.

(1) The design and mounting of the water closet is of considerable importance. A wall mounted water closet with a narrow understructure that recedes sharply is most desirable. If a floor mounted water closet must be used, it should not have a front that is wide and perpendicular to the floor at the front of the seat. The bowl should be shallow and the base should recede from the front to allow the individual in a wheelchair to get close to the water closet with the seat of the wheelchair.

vi. Includes a water closet offset from the center of the stall with the center of the water closet 18 inches from the nearest adjacent wall or partition.

vii. Includes a flushing mechanism other than foot-operated.

viii. Includes the entrance to the stall offset from the center line of the water closet. The center line of the stall door shall be no less than 24 inches from the center

line of the water closet.

ix. Has a wall mounted grab bar, adjacent to the fixture, 30 to 33 inches high. The installed grab bar shall be capable of bearing a dead weight of 300 pounds without permanent deflection. The grab bar shall:

(1) Be non-slip.

(2) Be 1½ inches in diameter.

(3) Have 1½ inches clearance between rail and wall.

(4) Be parallel to the floor.

(5) Be fastened securely in order to bear a dead weight of 300 pounds without permanent deflection.

(6) Extend from the rear edge of the water closet to one foot beyond the front edge of the watercloset.

3. Toilet rooms shall have at least one lavatory with a narrow apron mounted with 30 inches clearance from the finished floor to the bottom of the apron.

i. Vanity type lavatories are acceptable, if they meet the following requirements:

(1) Are provided with a six inch deep by 8-3/4 inch high toe space.

(2) Controls are located a maximum of 20 inches from the front edge of the vanity top.

(3) The height of the vanity top above the finished floor is no more than 34 inches.

ii. It is preferred for lavatories accessible to, and usable by, the physically handicapped to have a single lever control.

4. Drainpipes and hot water pipes under a lavatory

should be covered or insulated, so that persons without sensation in their legs will not burn themselves.

5. Toilet rooms for men shall have wall mounted urinals with the opening of the basin 15 inches from the finished floor, or shall have floor mounted urinals that are on level with the finished floor of the toilet room.

6. A right angle floor and wall mounted non-slip grab bar shall be located next to one of the standard height urinals. The centerline of this urinal to the center line of the bar shall be approximately 16 inches.

7. Flushing mechanisms shall not be foot operated.

8. Where showers are provided for public use, at least one shall be no less than 3 feet by 3 feet inside dimensions. This shower shall not contain curbs except that thresholds for entering and leaving showers may be used.

i. These thresholds shall be beveled with a maximum edge height of three-quarters inch and not more than 45 degree slope.

ii. These shower stalls shall have a non-slip floor surface.

iii. Where these stalls are used, a seat shall be positioned 17 to 19 inches above the finished floor and may be hinged to fold back against the wall or tank.

iv. A non-slip grab bar, 33 inches in height, shall be attached to the stall wall opposite the seat and, if applicable, shall extend around on the side of the wall, but not behind the seat.

v. The grab bar shall be 1½ inches in diameter and have a clearance between rail and wall of 1½ inches.

vi. The water control shall be either single lever

or blade type, with pressure balancing control, and mounted on the wall adjacent to the seat.

(1) A flexible hose with a hand shower spray is recommended in lieu of the standard shower head.

vii. A soap tray shall be placed at a height not to exceed 40 inches above the finished floor and mounted adjacent to the seat.

9. Toilet room accessories:

i. If floor cabinets are provided in the toilet room area, they shall contain a minimum toe space of 8-3/4 inches in height and six inches in depth.

ii. Where towel racks, dispensers, disposal units, vending machines and appliances are provided in toilet rooms, one of each shall be mounted with all operating mechanisms (such as cranks, coin slots and buttons) and items themselves no more than 48 inches above finished floor.

iii. Mirrors shall be mounted with the bottoms no higher than 40 inches from the finished floor.

(1) Tilted mirrors, placed at a height higher than 40 inches, may be substituted, if they permit people in wheelchairs adequate sight.

(2) A full length mirror is an adequate alternative and is preferred in each toilet room.

iv. If shelves are provided, at least one shall be 40 inches from the finished floor.

(h) Wherever water fountains are planned, at least one per floor shall meet the following requirements:

1. Water fountains or water coolers shall have upfront spouts and controls.

2. Water fountains or water coolers shall be lever handle-operated, lever handle-and-foot operated, or push-button operated.

i. Fully recessed water fountains are permitted, provided a cup dispenser is a part of the unit.

ii. Water fountains or water coolers may be set into an alcove, if the alcove is at least 32 inches wide.

3. Where a single cooler is used, the rim shall be no more than 34 inches (30 inches is preferable) above the finished floor. Where water coolers are higher than 34 inches, they shall have an additional small fountain mounted on the side of the cooler, with the rim of this fountain basin no higher than 30 inches above the finished floor, or an additional separate cooler shall be provided with its rim 30 inches above the finished floor.

4. In existing buildings, water coolers that are already installed and that do not meet the above requirements may be used providing a cup dispenser is installed. The cup dispenser shall be installed with its lower edge between 36 inches and 40 inches above the finished floor and immediately adjacent to the cooler.

(i) In all school laboratory and shop facilities, at least one working area dimensioned to permit use by physically handicapped pupils (see N.J.A.C. 6:22-3.8 (a) through 3.8 (c) shall be provided as follows:

1. A work surface shall be provided with a 30 inch clearance from the bottom of the work surface to the finished floor so that it is sufficient for a wheelchair to drive in underneath.

2. At least three feet of clear space shall be provided in and about the work area to provide mobility for a wheelchair.

(j) Public telephones

1. All "banks" of public telephones (a bank consists of two or more public telephones in one area) shall have at least one telephone which can be used by the physically handicapped, including those in wheelchairs and those with hearing and sight disabilities.

2. The following are minimum requirements:

i. The top of the coin slot shall be placed no higher than four feet above the finished floor.

ii. The telephone shall be equipped with an adjustable volume control with instructions for use.

iii. The telephone dial shall be push button type, with numbers as large as possible in relief.

iv. If a counter or other writing surface is provided, it shall have a clearance of 30 inches from the finished floor to the bottom of the writing surface.

v. Standard enclosed telephone booths are inaccessible to wheelchairs. If an enclosed telephone booth is provided, it shall have the following:

(1) 42 inches clear floor space between walls.

(2) 32 inches clear door opening with outswinging, sliding or folding door.

(3) Telephone unit mounted on sidewall with the top of the coin slot placed no higher than four feet above the finished floor.

(4) Telephone shall be equipped with an adjustable volume control with instructions for use.

(5) Telephone dial shall be push button type, with numbers as large as possible in relief.

(6) Seat should fold out of the way.

(k) The following requirements shall be met to ensure the safety of physically handicapped persons:

1. No objects under seven feet from the finished floor level (with the exception of doors) shall protrude into corridors, exitways, or traffic ways used by the general public. Equipment, such as fire extinguishers, should be recessed with necessary signing.

2. All controls which are essential or frequently used, for example, fire extinguishers and all control devices for for light, power, heat, ventilation, windows, draperies, door and similar controls, shall be placed within reach of all handicapped persons. The maximum height from the finished floor at which these controls shall be placed is four feet.

3. All warning signals, when required, shall be equipped with both audible and visual signals.

4. Any doors leading to areas that may be dangerous to visually impaired persons, and not intended for normal use, such as boiler rooms, fire escapes, stages, and loading platforms, should be equipped with an audible warning device that would sound on opening, and thus warn the visually impaired person of the danger in the area.

5. It is recommended that signs identifying spaces such as rooms have lettering/symbols at least three-quarters inch high, done in relief. These signs shall be mounted with their horizontal center line four feet six inches above the finished floor. These signs shall be located on the wall, next to the door on the side nearest the door handle or knob when the door is closed.

6. Signs identifying routes of travel within buildings should be located where a visually impaired person can "read them off" by touch. Such signs shall have lettering/symbols at least three-quarters inch high, done in relief. These signs shall be mounted with their horizontal center line 4½ feet above the finished floor.

7. Warning devices shall be installed and barricades placed at least eight feet from area of hazard when manholes or access panels are open or in use, and located in the normal approximate pedestrian way. It is recommended that warning devices be both visual and audible.

8. Where vision panels are used in corridor doors, they should allow visibility to people in wheelchairs. Such vision panels shall be vertically mounted with the bottom of the panel no higher than three feet from the finished floor, the panel width not less than three inches, and the panel length not less than 30 inches.

9. Use of gratings should be avoided, but if necessary they shall contain skid proof grids with maximum openings of three-quarters inch in any direction. The entire grid shall be flush with the surrounding surface.

10. To assist the visually impaired in their utilization of buildings, the following additional criteria are highly recommended:

i. Glass doors and very large windows should have a colored band, which can be seen easily against the background, 4½ feet above the finished floor.

ii. Circulation routes should be differentiated from other building areas by different colored flooring.

iii. Contrasting colors should be used to differentiate the space in front of elevators, the beginning and end of ramps, and the first and last steps of stairways.

iv. Obstacles such as information desks, signs, and columns should be avoided within circulation areas.

v. Stairways and escalators should be located to minimize the risk of a visually impaired person falling down them. They should be placed perpendicular to or at the side of corridors and circulation routes.

(1) All specifications within this standard are applicable to public assembly buildings, structures, facilities or areas. In addition, the following specifications shall be met:

1. Handicapped seating shall be an integral part of the seating plan and not segregated. It shall be on a level with the primary entrance or connected to it by ramps or elevators:

i. Wheelchair seating spaces should be located where floors can remain level as at cross aisles, front and rear areas, and boxes.

2. Spaces shall be allotted to accommodate individuals confined to wheelchairs. Such spaces shall be appropriate for viewing the type of events conducted. Such spaces shall allow for chairs to accommodate companions of individuals in wheelchairs when such might be necessary or appropriate.

3. The following table lists the minimum number of

required wheelchair viewing positions:

CAPACITY OF ASSEMBLY SPACES	REQUIRED NUMBER OF WHEEL-CHAIR SPACES
Up through 25	1
26 through 50	2
51 through 75	3
76 through 100	4
101 through 1000	2% of total, but not less than 5
Over 1000	20 plus 1 for each 100 over 1000

i. These space allocations do not include portable chairs for persons accompanying wheelchair spectators.

4. In such facilities as auditoriums and gymnasiums, areas for participation as well as for spectatorship shall be equally accessible in accordance with the specifications of this standard. This would include the stage of an auditorium or the playing floor of a gymnasium, and such supportive facilities as dressing rooms, shower rooms, locker rooms and route of travel.

6:22-3.8 Wheelchairs and crutches

(a) The collapsible-model wheelchair of tubular metal construction with plastic or fiber upholstery for back and seat is most commonly used. A standard model of all manufacturers falls within the following limits, and was used as the basis of consideration. This information will be standard for many wheelchairs, but should not be considered standard for every wheelchair.

1. Length: 42 inches;
2. Width, when open: 25 inches;
3. Height of seat from floor: 19½ inches;
4. Height of armrest from floor: 29 inches;

5. Height of pusher handles (rear) from floor: 36 inches;

6. Width, when collapsed: 11 inches.

(b) Because wheelchairs do differ in size, all of the information contained herein is approximate, not absolute.

1. Excluding toe space, the fixed turning radius of a standard wheelchair, wheel to wheel, is 18 inches. The fixed turning radius, front structure to rear structure, is 31½ inches.

2. Excluding toe space, the average turning space required (180 and 360 degrees) is 60 by 60 inches.

(i) Actually, a turning space that is longer than it is wide, specifically, 63 by 56 inches, is more workable and desirable. In an area with two open ends, such as might be the case in a corridor, a minimum of 54 inches between two walls would permit a 360 degree turn.

3. A minimum width of 60 inches is required for two individuals in wheelchairs to pass each other.

(c) Extremely small, large, strong, or weak and involved individuals could fall outside the ranges in this subsection and their reach could differ from the figure given; however, these reaches were determined using a large number of adults who were functionally trained, with a wide range in individual size and involvement.

1. The average unilateral vertical reach is 60 inches and ranges from 54 inches to 78 inches.

2. The average horizontal working (table) reach is 30.8 inches and ranges from 28.5 inches to 33.2 inches.

3. The bilateral horizontal reach, both arms extended to each side, shoulder high, ranges from 54 inches to 71 inches and averages 64.5 inches.

4. An individual reaching diagonally, as would be required in using a wall-mounted dial telephone or towel dispenser, would make the average reach (on the wall) 48 inches from the floor.

(d) Most individuals ambulating on braces or crutches, or both, or on canes are able to manipulate within the specifications prescribed for wheelchairs, although doors present quite a problem at times; however, attention is called to the fact that a crutch tip extending laterally from an individual is not obvious to others or protective as a wheelchair and is, therefore, a source of vulnerability.

1. On the average, individuals five feet six inches tall require an average of 31 inches between crutch tips in the normally accepted gaits.

2. On the average, individuals six feet tall require an average of 32.5 inches between crutch tips in the normally accepted gaits.

3. Some cerebral palsied individuals, and some severe arthritics, would be extreme exceptions to data in this subsection.

SUBCHAPTER 4. ELECTRICAL SUBCODE

6:22-4.1 Model electrical code

All electrical installations and equipment shall be in accordance with the National Electrical Code (1978) except as herein amended.

6:22-4.2 Outlets

Instructional spaces shall be provided with sufficient outlets (receptacles) to satisfy the program need but in no case shall there be less than two duplex outlets remotely located.

6:22-4.3 Large group areas

(a) Assembly rooms, auditoriums and other large group instructional spaces shall be provided with:

1. A convenience outlet at the probable location of portable projectors.

2. Built-in speaker cables at the above location as well as stage and/or platform areas.

6:22-4.4 Light switching

(a) Light switching shall comply with the following:

1. Switching shall be provided for each lighting circuit, or for portions of each circuit, so that the partial lighting required for custodial or for effective complementary use with natural lighting may be operated selectively.

2. Corridor and stairhall lights shall be controlled by three-way switches or other devices accomplishing the same purpose located at convenient control points.

6:22-4.5 Emergency cut-out switches

There shall be push type emergency cut-out switches provided

at appropriate locations within shops to de-energize the electrical supply to machinery. These switches shall be provided on the basis of one for each 1,000 square feet or fraction thereof of floor area in the shop, but not less than two. Reset of the interrupted service shall be by a key-operated switch. The cut-out and reset circuits shall be designed and installed to negate the possibility of the control circuit being de-energized thereby being inoperative.

6:22-4.6 Magnetic-type switches

All non-portable motorized equipment and machinery shall be provided with magnetic-type switches to prevent machines from automatically re-starting upon restoration of power after an electrical failure or activation of the above emergency cut-off.

6:22-4.7 Gas shut-off switches

The line supplying gas to each instructional room, laboratory, shop or other space where gas is used by students, except home economics areas, shall be provided with an electric solenoid key-operated gas shut-off switch.

6:22-4.8 Circuiting

All instructional areas and rooms of assembly shall be provided with a minimum of two lighting circuits and circuiting shall be arranged so that each area is fed from a minimum of two phases of the distribution system.

6:22-4.9 Second source of illumination

Each instructional space and room of assembly which is illuminated with the use of high intensity discharge sources (such

as mercury vapor, high pressure sodium, and metal halide lamps) shall also be provided with a second source of illumination. This second source shall be incandescent or fluorescent sufficient to provide not less than the 0.5 footcandle evenly distributed throughout the room measured on a horizontal plane 30 inches above the floor. The second source shall be designed and installed to provide illumination instantly upon activation of the circuit.

6:22-4.10 Fail-safe lamps

Mercury lamps, when used, shall be of the fail-safe type which will be permanently extinguished within two minutes after the outer glass is broken. Fail-safe lamps are not required where the luminaire is designed to protect the lamp from breakage by the use of continuous metallic, glass or plastic components.

6:22-4.11 Lighting intensity, quality and safety

(a) The intention of this section is to establish requirements for lighting levels, visual comfort conditions and safety considerations.

(b) References for each of the following should be the latest published edition:

1. American Standard Guide for School Lighting;
2. Illuminating Engineering Society Lighting Handbook;
3. National Electrical Code.

(c) Drawings submitted by the architect-engineer shall state the footcandle levels to be maintained in each space at work level. It is recommended, but not mandated, that the luminaires specified and to be installed comply with the scissors-curve criteria including luminaire brightness ratios, using values of photometric data prepared by Electrical Testing Laboratories, Inc. or other approved testing laboratory for each luminaire to be used in a laboratory, as approved by the architect-engineer.

(d) The uniformity of light intensity in instructional rooms shall be such that within the work area, the minimum intensity at work level will not be less than 70 per cent of the maximum light intensity. The work area shall be that space in each instructional room within three feet of the wall.

(e) No limitations shall be placed on luminaire types providing they comply with the requirements of this section.

(f) Installed lighting intensity shall comply with the following table:

INSTALLED LIGHTING INTENSITY

Locations	Minimum Acceptable Footcandles*
Classrooms and Instructional Areas - on work surface	50
Study Halls, Lecture Rooms, Art Rooms, Offices, Libraries, Conference Rooms, Work Rooms, Shops, Laboratories, and Secondary School Cafeterias	50
Drafting, Typing and Sewing Rooms	70
Reception Rooms, Gymnasiums, Auditoriums, Cafeterias, All-Purpose Rooms, and Swimming Pools	30
Locker Rooms, Wash Rooms, Toilet Rooms, Corridors containing Lockers, Stairways	10
Corridors without lockers, and Store Rooms	5
Classrooms for the Partially Seeing	70

*Minimum footcandles maintained on the task at anytime.

(g) Reflectance factors should be within the following ranges:

RECOMMENDED REFLECTANCE FACTORS

Surface	Reflectance Factor
Ceilings,White	70-90%
Walls	40-60%
Furniture,Light-Colored	35-50%
Floors,Light-Colored	15-50%

(h) Architects and engineers are urged to exercise ingenuity and originality within the framework of these requirements. Nothing in this section's lighting intensity requirements shall be considered maximum, and higher levels of illumination may be used where appropriate. Each individual environmental space should be carefully considered during the design stages and treated in the best manner possible consistent with economic responsibility and energy conservation.

SUBCHAPTER 5: ENERGY CONSERVATION SUBCODE

6:22-5.1 Basic energy conservation code

(a) Subject to the following modifications, all school buildings shall be designed in accordance with the model code of the Building Officials and Code Administrators International, Inc., known as "The BOCA Basic Energy Conservation Code/1978":

1. Eliminate all reference to lighting in the Preface, page iv. (See, instead, the Electrical Subcode.)

2. Article 4 is amended by deleting the phrase "WARM AIR" from the title.

3. Section E400.1 is amended by deleting the first paragraph and substituting the following: "This article applies to all heating, ventilating and air conditioning systems except those used for the removal of flammable vapors, residues, dust, stock or refuse by means of air currents."

4. Section E401.2 is deleted in its entirety. Substitute in lieu thereof N.J.A.C. 6:22-5.2(b)2 entitled "System Capacities and Cooling with Outdoor Air."

5. Section E404.2 is deleted and the following substituted in lieu thereof:

i. "Heating thermostats shall be capable of being set between 45° - 80°F.

ii. Cooling thermostats shall be capable of being set between 70° - 85°F.

iii. Combined heating and cooling thermostats shall be capable of being set between 45° - 85°F."

6. Section E404.4 is amended by adding the following to the end of the last paragraph: "except that public schools shall be provided with automatic temperature contrcls to provide individual temperature control for each instructional space and systems shall be zoned so that spaces such as gymnasiums, auditoriums, libraries and administrative offices may be heated, ventilated and/or air conditioned independently."

6:22-5.2 Minimum ventilation requirements

(a) All school buildings shall be equipped with a mechanical air supply and exhaust ventilation system which will provide, during periods of occupancy, standard tempered outdoor air supply, mechanical exhaust and system capacities at the minimum rates set forth in the following table:

MECHANICAL VENTILATION REQUIREMENTS*

Room Name	Outdoor Air Supply **(CFM/Sq.Ft.) (See Note 1)	Mechanical Exhaust (CFM.Sq.Ft.)	System Capacity (CFM/Sq.Ft.) (See Note 2)	Remarks
Pre-Kindergarten	0.15	0.15	1.25	
Home Economics (without cooking)- Child Care	0.15	0.15	1.25	
Distributive Education	0.15	0.15	1.25	
Electric Laboratory	0.15	0.15	1.25	
Electronics Laboratory	0.15	0.15	1.25	
Home Economics (with cooking)- Combination	0.15	0.20	1.25	See Note 3
Art	0.20	0.20	1.25	
Arts and Crafts Classroom	0.20	0.20	1.25	
Office Machines	0.20	0.20	1.25	
Educational Data Processing	0.20	0.20	1.25	
Office Practice	0.20	0.20	1.25	
Drafting	0.20	0.20	1.25	
Home Economics (Clothing and Family Living)	0.20	0.20	1.25	
Special Education Classrooms	0.20	0.20	1.25	
Science Laboratories and Preparation Rooms	0.20	0.25	1.25	See Note
Cosmetology	0.20	0.25	1.25	"
Home Economics (Foods)	0.20	0.25	1.25	"
Open Space Instructional Area	0.25	0.25	1.25	
Drive Education	0.25	0.25	1.25	
Kindergarten	0.25	0.25	1.25	
Typing	0.25	0.25	1.25	
Learning Laboratory	0.25	0.25	1.25	
Language Laboratory	0.25	0.25	1.25	
Academic Classrooms	0.25	0.25	1.25	
Bookkeeping	0.25	0.25	1.25	
Shorthand	0.25	0.25	1.25	

MECHANICAL VENTILATION REQUIREMENTS*(CONTINUED)

Room Name	Outdoor Air Supply **(CFM/Sq.Ft.) (See Note 1)	Mechanical Exhaust (CFM.Sq.Ft.)	System Capacity (CFM/Sq.Ft.) (See Note 2)	Remarks
Auditorium and Stage	0.65	0.65	2.50 See Note 6	
Lecture Hall	0.65	0.65	2.50 See Note 6	
Large Group Instruction	0.65	0.65	2.50 See Note 6	
All Purpose Room (Gym-Auditorium)	0.65	0.65	2.50 See Note 6	
Industrial Arts (General, Metal & Wood)	360 CFM per rm.	400 CFM per rm.	1.75	See Note 3
Shops (Comprehensive General Graphic Arts, Power-Automotive, Machine, Metal and Wood)	"	"	1.75	See Note 3
Vocational School Shops	"	"	1.75	See Note 3
All Purpose Room (Gym-Cafeteria)	1.0	1.0	2.75 See Note 7	
Cafeteria	1.0	1.0	2.75 See Note 7	
Seminar, Conference	0.50	0.50	1.50	
Small Group Instruction	0.50	0.50	1.50	
Teachers	0.50	0.50	1.50	
Windowless Office Space	0.20	0.20 See Note 11	1.0	See Notes 4 & 11
Gymnasium	See Note 8	See Note 8	See Note 8	
Auxiliary Gymnasium, Universal Gymnasium, Wrestling Room and Similar Areas	See Note 9 "	See Note 9 "	See Note 9 "	
Locker Room, Shower Room, Janitor's Closet, Individual Toilet Room, Private Toilet Room	1.50 See Note 4	1.65		100 CFM Minimum
Kitchen	3.0 See Note 4	3.30		See Note 3
Library	0.15	0.15	1.15	
Instructional Media Center	0.15	0.15	1.15	
Shops other than above	0.15	0.15	1.15	
Music and Practice Rooms	0.35	0.35	1.25	See Note 5
Swimming Pool	1.10	1.10	2.20	See Note 10
Toilets, General	1.50 See Note 4	1.65		12 air changes Minimum
Chemical Storage Rooms	0.30 See Note 4	0.35		

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*This Table replaces a comparable Table in ASHRAE [illegible]3, Section 6.5 as quoted in ASHRAE 90-75.
**Cubic Feet Per Minute.

(b) Notes on Mechanical Ventilation Requirements are as follows:

1. Outdoor air supply

i. The requirements for outdoor air supply listed in the above table are for 100 per cent outdoor air when the outdoor air meets the specifications for air quality as set forth under Section 3.0 (Acceptable Ventilation Air Quality) in the American Society of Heating, Refrigerating and Air Conditioning Engineers (ASHRAE) Standard 62-73 entitled "Standards for Natural and Mechanical Ventilation;"

ii. Ventilating systems shall be in accordance with Section 4.0 "Ventilating Systems-General Requirements" in ASHRAE Standard 62-73;

iii. Outdoor air quantities may be reduced if the contaminant concentrations are lower than the maximum allowable levels or if filtering and purifying equipment is installed in accordance with Section 5.0 (Recirculation) in ASHRAE Standard 62-73. In no case shall the outdoor air quantity be less than five CFM per person based on the total occupancy listed in the "School Capacity" bulletin of the Bureau, except that occupancies for gymnasiums shall be determined by actual seating capacity or occupancy based on 15 square feet per person, whichever is higher.

2. System capacities and cooling with outdoor air

i. System capacities listed in the above table are applicable to air supply fan systems which are not provided with mechanical cooling facilities. System capacities listed are minimum and are based on utilization of the minimum glass areas contained in the school code. In cases where more than the minimum

glass area is provided, system capacities shall be increased accordingly;

ii. System capacities for air supply fan systems which are provided with mechanical cooling facilities shall be based on design temperatures contained in the school code.

iii. All areas shall be provided with facilities for relief of total system capacity supply air. Relief facilities shall consist of combinations of mechanical exhaust systems with minimum capacities listed in the above table, supplemented with either mechanical or gravity exhaust systems having capacities equal to the difference between system capacities and minimum mechanical exhaust system requirements. Relief from spaces such as home economics cooking classrooms, science laboratories and prep rooms, cosmetology classrooms and shops shall be discharged directly to the exterior of the building;

iv. Each air supply fan system serving student-occupied areas, conference rooms, seminar rooms, teachers' rooms and windowless offices shall be designed to use up to and including 100 per cent of the fan system capacity for cooling with outdoor air automatically. Cooling with outdoor air is not required under any one of the following conditions:

(1) Fan system capacity is less than 2,000 CFM or 60,000 BTU/hour total cooling capacity for systems serving spaces other than student-occupied areas;

(2) The quality of the outdoor air is so poor as to require extensive treatment of the air;

(3) The need for humidification or dehumidification requires the use of more energy than is conserved by outdoor air cooling;

(4) The use of outdoor air cooling may affect the operation of other systems (such as return or exhaust fans) so as to increase the overall energy consumption of the building;

(5) Internal/external zone heat recovery or other energy recovery is used;

(6) When all space cooling is accomplished by a circulating liquid which transfers space heat directly or indirectly to a heat rejection device such as a cooling tower without the use of a refrigeration system.

3. Special exhaust systems shall be provided for removal of dust, fumes, odors and excessive heat in all areas such as shops, kitchens, dishwashing rooms, home economics cooking rooms, paint finishing rooms, paint finishing booths, cosmetology classrooms, science laboratories and science prep rooms. Provisions shall be made for introducing tempered make-up air to satisfy exhaust system requirements. Make-up air may be drawn from corridor ceiling plenums. The systems shall be manually controlled and energized when required. Exhaust systems shall have capacities 10 per cent in excess of air make-up systems. Rooms accommodating internal combustion engines shall be provided with adequate air intake and exhaust facilities to suit engine requirements and engine exhaust shall be piped to the exterior of the building.

4. Air may be drawn from adjacent areas such as corridors, corridor ceiling plenums, cafeterias or gymnasiums or spaces of similar function.

5. Music practice rooms shall be provided with air supply and exhaust systems and sound traps and/or acoustical treatment shall be included to minimize sound transmission.

6. System capacities for auditoriums, lecture halls, large group instruction areas and stage areas may be provided by means of a combination of air supply fan systems having minimum capacities of 1.50 CFM per square foot of floor area, supplemented with mechanical exhaust fans having capacities of 1.0 CFM per square foot of floor area. Air make-up for supplemental exhaust fans may be introduced into spaces through open exterior doors or windows, through roof ventilators with automatic dampers or through wall louvers with automatic dampers.

7. System capacities for cafeterias and all-purpose rooms may be provided by means of a combination of air supply fan systems having minimum capacities of 2.0 CFM per square foot of floor area, supplemented with mechanical exhaust fans having capacities of 0.75 CFM per square foot of floor area. Air make-up for supplemental exhaust fans may be introduced into spaces through open exterior doors or windows, through roof ventilators with automatic dampers or through wall louvers with automatic dampers.

8. Outdoor air supply, mechanical exhaust and system capacities for gymnasiums with adjacent locker rooms shall be in accordance with the following:

i. Outdoor air supply and mechanical exhaust air quantities for gymnasiums shall be based on the locker room exhaust requirements, but in no case less than 0.25 CFM per square foot of gymnasium floor area;

ii. Outdoor air supply and mechanical exhaust air quantities shall be increased during spectator occupancy periods to provide a minimum of five CFM per occupant, with occupancy based on actual seating capacity or 15 square feet per person, whichever is higher;

iii. System capacities shall be a minimum of 2.50 CFM per square foot of gymnasium floor areas. System capacities may be provided by means of a combination of air supply fan systems having minimum capacities of 1.50 CFM per square foot of gymnasium floor area, supplemented with mechanical exhaust fans having capacities of 1.00 CFM per square foot of gymnasium floor area. Air make-up for supplemental exhaust fans may be introduced into gymnasiums through open exterior doors or windows; through roof ventilators with automatic dampers or through wall louvers with automatic dampers.

9. Outdoor air supply, mechanical exhaust and system capacities for auxiliary gymnasiums, universal gymnasiums, wrestling rooms and similar areas shall be in accordance with the following:

i. Outdoor air supply and mechanical exhaust capacities shall be a minimum of 0.25 CFM per square foot of floor area during periods when the areas are used for instructional purposes. In cases where these areas are used for high occupancy activities, such as dances, outdoor air supply and mechanical exhaust capacities shall be increased to provide a minimum of five CFM per occupant during such occupancy periods, with occupancy based on 15 square feet per person;

ii. Air supply fan system capacities shall be a minimum of 1.50 CFM per square foot of floor area during periods when the areas are used for instructional purposes. Total system capacities shall be increased to a minimum of 2.50 CFM per square foot of floor area during periods of high occupancy and the total system capacity for these conditions may be provided by means of air supply fan systems having minimum capacities of 1.50 CFM per square foot of floor area, supplemented with

mechanical exhaust fans having capacities of 1.0 CFM per square foot of floor area. Air make-up for supplemental exhaust fans may be introduced into spaces through open exterior doors or windows through open exterior doors or windows, through roof ventilators with automatic dampers or through wall louvers with automatic dampers.

10. Swimming pool ventilation systems shall be in accordance with the following:

i. Air supply fan system capacities shall be a minimum of 2.20 CFM per square foot of floor area;

ii. Outdoor air supply and mechanical exhaust capacities shall be a minimum of 1.10 CFM per square foot of floor area during winter periods;

iii. Outdoor air supply and mechanical exhaust capacities shall be increased to a minimum of 2.20 CFM per square foot of floor area during summer periods;

iv. Mechanical dehumidification or cooling shall not be permitted except where its use will not increase the energy requirements of the structure.

11. Windowless office space: in lieu of supplying outdoor air directly to the space mechanical exhaust may be provided at the minimum rate of 1.0 CFM per square foot in accordance with note four of this subsection.

12. In no case shall exhaust ventilation be discharged into a corridor, vestibule or stairtower.

13. All pupil clothing storage facilities shall be ventilated.

14. Recirculation of air, in excess of the minimum

quantities listed in the Table in N.J.A.C. 6:22-5.2 (a), is permitted for non-odor producing areas. Recirculation of air in odor producing areas such as shops, laboratories, kitchens and the like, is permitted only within the respective space.

15. Each shop, where dust generating equipment is installed, shall be provided with dust collecting equipment. Such equipment shall be either single or multi-use vacuum packs or a central dust collection system. Installed systems shall comply with National Fire Protection Association Standard No. 91, and New Jersey Department of Environmental Protection Regulations (N.J.A.C. 7:27-8.1 et seq.).

16. Exhaust hoods and flues for ranges, forges or other heat generating equipment when installed shall be in compliance with National Fire Protection Association Standard No. 96, and of the 1978 BOCA Basic Mechanical Code, Section M-321.0.

17. Individual toilet rooms, when not connected to an exhaust system, shall have their individual exhaust fans manually operated and interconnected with the toilet room light switch.

18. All instructional rooms not provided with windows complying with N.J.A.C. 6:22-2.2 (e) shall be provided with individual automatic temperature controls and heating, mechanical cooling and ventilating systems. Auditoriums, cafeterias and gymnasiums are not required to be provided with mechanical cooling facilities.

19. All air distribution systems shall be in accordance with National Fire Protection Association Standard No. 90A.

20. Uniform drying rooms shall be provided with separate air supply and exhaust systems to maintain proper humidity conditions.

6:22-5.3 Heater room

(a) Heater rooms having any type of combustion equipment shall be provided with an outside air intake complying with the BOCA Basic Building Code, Section 1105.1 as amended (N.J.A.C. 6:22-2.2 (k).

(b) All heater rooms shall be provided with an exterior window, skylight or approved explosion hatch of suitable proportions to serve as a release in the event of an explosion.

6:22-5.4 Heating plant safety

(a) All coal, liquid fuel, or gas fired boilers and vessels or furnaces used for heating or for domestic hot water shall be provided with all prescribed safety devices complying with New Jersey Department of Labor and Industry, Mechanical Inspection Bureau's Rules and Regulations.

(b) Where bottled gas is used for any purpose, the location of containers shall be in accordance with the latest published edition of the National Fire Protection Association Standard No. 58 for the storage and handling of liquified petroleum gas.

(c) Not less than two emergency cut-off switches for all heating furnaces shall be provided, clearly lettered and conveniently located, one at or near each exit doorway in compliance with N.J.A.C. 6:22-2.2 (k)4.

(d) All gas pilot lines shall be provided with solenoid vapor valves.

6:22-5.5 Air conditioning

(a) All equipment and the method of installation must conform to the requirements of the BOCA Basic Mechanical Code/ 1978 Section 8 with relevant appendices.

SUBCHAPTER 6. PLUMBING SUBCODE

6:22-6.1 Basic codes

(a) All plumbing installations and equipment shall be in accord with the National Standard Plumbing Code (N.S.P.C.), except as amended in this subchapter.

(b) All gas installation, piping, storage and equipment shall be in accord with N.J.A.C. 6:22-2.2(k) and all applicable National Fire Protection Association standards for the type of gas to be used.

6:22-6.2 Modifications to the National Standard Plumbing Code

(a) Chapter 1 of N.S.P.C. entitled "Definitions" is amended as follows:

1. "Administrative authority" shall mean the "Bureau director or his/her authorized representative."

2. The following definitions are added:

i. "General pupil toilet rooms" are those designed and labeled for pupil use, containing at least two of each required fixture, and which are directly accessible from a corridor or an open plan instructional space whenever the building is occupied. Pupils housed within an instructional space shall not be required to travel through any other space, except a corridor to reach a general pupil toilet room.

ii. "Individual toilet rooms" are those designed for and directly accessible to a specific individual or group.

(b) Chapter 2 of N.S.P.C. entitled "General Regulations" shall be amended as follows:

i. Section 2.4.1 is amended by deleting the phrase "the provision of this paragraph may be waived by the administrative authority."

2. Section 2.4.3 is amended by deleting the phrase "or is approved by the administrative authority as having a desirable and acceptable function and as of ultimate benefit to the proper and continuing function of the plumbing system."

3. Section 2.5 is deleted in its entirety.

4. Section 2.6.4 is amended to delete the word "local" and substitute in lieu thereof, the word "applicable."

5. Section 2.9.3 is amended to delete the phrase "building code or as required by the proper administrative authority" and substitute in lieu thereof "the school code."

6. The first sentence in section 2.16 is deleted and the following substituted in lieu thereof: "Water service piping and sewers shall be installed below recorded frost penetration, but not less than three feet six inches for water piping and two feet for sewers."

7. Section 2.20 is amended by adding the following new items:

i. At least one general pupil toilet room for each sex shall be provided on each floor occupied by students. At least one individual toilet room shall be provided in each kindergarten room.

ii. Entrance to toilet rooms and locker rooms shall be screened to prevent visibility into the room.

iii. Water closets shall be separated by individual stall partitions of a smooth impervious material to permit effective cleaning. Stall doors are optional and partitions need not extend to the floors.

iv. Floors of all toilet rooms, shower rooms and drying rooms shall be water-tight and impervious to moisture. Floors shall be provided with an integral cove base at least four inches high.

v. Flooring materials of ceramic tile, quarry tile, sheet vinyl (except for showers) and plastic coatings designed for this purpose shall be deemed to meet the requirements of this subsection; resilient tiles or exposed concrete are not acceptable in toilet rooms.

8. Section 2.25.1(h) is amended to add the words "which does not otherwise adversely affect health and safety."

(c) Chapter 3 of N.S.P.C. entitled "Materials" is amended as follows:

1. Section 3.1.1 is amended in the heading to delete the word "minimum."

2. Section 3.1.1(b) is amended to delete the words "as permitted in Section 3.3.2."

3. Section 3.1.2 is amended to delete the words "at least" on line 2.

4. Note 3 in Section 3.1.3 is amended to delete the last sentence.

(d) Chapter 4 of N.S.P.C. entitled "Joints and Connections" remains unchanged.

(e) Chapter 5 of N.S.P.C. entitled "Traps and Cleanouts" remains unchanged.

(f) Chapter 6 of N.S.P.C. entitled "Interceptors, Separators, and Backwater Valves" remains unchanged.

(g) Chapter 7 of N.S.P.C. entitled "Plumbing Fixtures" is amended as follows:

1. Section 7.22 (Drinking Fountains) is amended by adding the following new items:

i. Water fountains and/or coolers shall be provided with up-front angle stream spouts and hand-operated controls.

ii. Water fountains and/or coolers shall be recessed so as to project no more than 13 inches into the corridor. When full recess is provided, the alcove width shall be at least 32 inches.

2. Section 7.24.1 is amended as follows:

i. Facilities for instructional, administrative and maintenance personnel shall be in accord with the ratios listed in the table under "Public Buildings, Official Businesses, Mercantile, Storage and Institutional Employees."

ii. The ratios listed in the table for schools shall be deleted and the following substituted in lieu thereof:

MINIMUM NUMBER OF PLUMBING FIXTURES IN SCHOOLS

Schools	Water Closets		Urinals	Lavatories
Elementary (grades 1-8)	1:60 boys	1:30 girls	1:30 boys	1:50 pupils
Secondary (grades 7-12)	1:90 boys	1:45 girls	1:45 boys	1:50 pupils

CORRIDOR DRINKING FOUNTAINS

Elementary

No. of Pupils	No. of Fixtures
First 250 pupils	1 for every 50 pupils
251-550	1 for every additional 75 pupils
551+	1 for every additional 100 pupils

CORRIDOR DRINKING FOUNTAINS

Secondary

No. of Pupils	No. of Fixtures
First 300 pupils	1 for every 75 pupils
301-550	1 for every 125 additional pupils
551+	1 for every 200 additional pupils

iii.Ratios of fixtures in this subsection shall be based on the school occupancy as calculated using the Bureau's "School Capacity" bulletin.

(1) Where classrooms, shops or physical education rooms are provided with self-contained individual facilities (water closet, lavatory, and drinking fountains)the pupils in these rooms shall not be counted in computing the numbers of fixtures required in the general pupil toilet rooms.

(2) Drinking fountains may be attached to classroom lavatories.

(3) Drinking fountains shall be provided in kindergarten and pre-kindergarten rooms.

(4) Not less than one corridor drinking fountain shall be provided per floor occupied by pupils.

iv. Included with the above fixtures there shall be facilities for the handicapped as required in the Barrier-Free Subcode.

v. A health unit shall be provided and shall include a waiting area, an examination area, a rest area with privacy, and toilet facilities sized and arranged so that physically handicapped persons requiring assistance will be able to receive such aid.

vi. A custodian service room with sink and adequate storage

space shall be provided. There shall be a minimum of one such facility for each story located to provide the greatest accessibilit to the area served.

(h) Chapter 8 of N.S.P.C. entitled "Hangers and Supports" remains unchanged.

(i) Chapter 9 of N.S.P.C. entitled "Indirect Waste Piping and Special Waste" remains unchanged.

(j) Section 10.14.3B in Chapter 10 of N.S.P.C. entitled "Water Supply and Distribution" is amended by adding the following item: "The temperature of hot water going to shower heads shall be thermostatically controlled by a central mixing valve or valves located as to be easily supervised."

(k) Chapter 11 of N.S.P.C. entitled "Sanitary Drainage Systems" remains unchanged.

(l) Chapter 12 of N.S.P.C. entitled "Vents and Venting" remains unchanged.

(m) Chapter 13 of N.S.P.C. entitled "Storm Drains" Section 13.9.3 is deleted.

(n) Chapter 14 of N.S.P.C. entitled "Medical Care Facility Plumbing Equipment" remains unchanged.

(o) Chapter 15 of N.S.P.C. entitled "Tests and Maintenance" remains unchanged.

(p) Chapter 16 of N.S.P.C. entitled "Regulations Governing Individual Sewage Disposal Systems for Homes and Other Establishments Where Public Sewage Systems are not Available" is deleted in its entirety and the following substituted in lieu thereof: "Standards of the State Departmentof Environmental Protection for sewage disposal systems shall apply."

(q) Chapter 17 of the N.S.P.C. entitled "Potable Water Supply System Pumps" is deleted in its entirety and the following substituted in lieu thereof: "Standards of the State Department of Environmental Protection with respect to individual on-site water supply systems shall apply."

(r) Chapter 18 of N.S.P.C. entitled "Mobile Home and Trailer Park Plumbing Standards" remains unchanged.

These regulations become effective July 1, 1979.

Executive Order No. 66, 1978, Expiration Date.

This Chapter shall expire on July 1, 1984.